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COURSE OF LECTURES
ON THE
PHYSIOLOGY AND PATHOLOGY OF THE BLOOD,
AND
THE OTHER ANIMAL FLUIDS,

DELIVERED IN THE SESSION OF 1839-40,
AT THE
School of Anatomy adjoining St. George's Hospital,

BY HENRY ANCELL, ESQ., SURGEON.

LECTURE X.

Arterial and Venous blood continued.—Colour of the surface as indicative of the state of the blood in diseases.—Venous blood scarlet.—Blood preternaturally dark; pale.—Colour of the liquor sanguinis; its origin and uses; variations in disease.—Respiratory changes, not secretion; in what sense dependent on nervous influence.

GENTLEMEN:—In my last lecture I detailed the qualities of blood as obtained from different vessels, and was entering more fully into the subject of arterial and venous blood. Changes of colour were under consideration when we closed, and I had already stated that the colour of blood in the veins and arteries was modified in different states of the system.

In many physiological, as well as in pathological conditions, scarlet blood is found circulating in the veins. It frequently happens in venesection that the fluid which flows first is blackish, and that which comes afterwards is more florid; this happens most frequently when a large orifice is made in a subcutaneous vein, and it is produced by the arterial blood traversing the tissues without undergoing the change which is natural to it. Blood drawn from the arm an hour after a tight ligature has been applied is of a darker colour. Under great excitement venous blood often approaches in colour to arterial. That taken from the basilic vein of a patient, while in a warm bath, was observed by Mr. Thackrah to be scarlet. The principal cause of the phenomenon is, in these cases also, undoubtedly, increased rapidity of circulation, by which the arterial blood does not undergo the usual changes in the capillary system. In the same way muscular exertion brightens the colour of the countenance; but, in this case, increased energy of respiration heightens the scarlet colour. Changes occur more frequently, or are more frequently observed, in the shade of colour of venous than of arterial blood. In cold regions the blood is said to be darker than in temperate ones; and with respect to this distinction of colour, generally, it must not be assumed that unmixed scarlet blood is exclusively the supporter of life. Colour is mainly important as indicating the state of the respiratory changes generally. Together with the facts which I have mentioned respecting the lower animals, in the fœtus a mixture of florid and dark blood constantly circulates in the arteries, and in the *morbus cæruleus* the same thing happens from a quantity of venous blood passing to the left side of the heart, without having been previously transmitted through the lungs. With respect to these cases, although middle life has rarely been attained, it is a remarkable circumstance in the history of the blood, that the functions of life are for a time so well maintained, although the arterial blood is never pure and unmixed. Yet it should be observed, that the effect of these malformations is extremely partial. It is a part only of the blood which has not been through the lungs since its last circulation through the body, which mixes with that of the arteries, and this portion can never be twice the same. The anomaly of these cases is also in a great measure removed by the fact, that every circumstance which hurries the circulation produces all the morbid results of vitiated blood observable in other cases of asphyxia.

The changes of the red colour of blood in diseases will be best explained under distinct heads; but, as we frequently judge of them by the colour of the surface, the following remarks, by Dr. Maitland, are important:—Hunter alluded to the circumstance, that while we speak of the blood as red, we universally describe the veins as blue; and it is also remarked by him, that a thin layer of

fibrin gives the same blue colour to blood in a bason. "I have also seen blood unequally covered with a buffy coat, having an indigo tint in some parts, while others exhibited the red or buffy appearance. This may help to account for the blue tint of the subcutaneous veins; but there is another modifying circumstance, the opposition of flesh colour around the vein causes it to assume, in many instances, a distinct green appearance, on the principle of complementary colours, well known to artists. Besides this, the blue may be changed to green from being seen through a yellowish medium." These hints by Dr. Maitland are, undoubtedly, available by the medical philosopher, in estimating the hues and shades of the skin, and other tissues, in various morbid states.

1. *A Preternaturally Red Colour of the Surface; Venous Blood Scarlet.*—This indicates that the changes in the extreme capillaries are not properly effected, and may result from too great force and rapidity of circulation, in which case the influence of the heart is sometimes extended to the vein, and the blood issues *per saltem* on venesection; or the changes between blood and air in the lungs may be maintained too energetically; or the quantity of red corpuscles may be excessive. Baglivi remarked that venous blood is frequently scarlet in hectic patients; Simon Pauli, in many dangerous cases. It generally occurs in a greatly excited state of the constitution, and most frequently when the excitement is recent. Blood flowing from the vein of a youth under small-pox, presented the appearance of that from an artery, and the same thing is occasionally observed in severe cases of acute rheumatism. The blood flowing from the basilic vein of a young lady was at first darker than usual, but after a few minutes was composed of red blood mixed with streaks of purple. The colour of the blood in external parts furnishes us with valuable information. It is of a florid scarlet in the veins of a part affected with phlegmon. Varieties of shades in different inflammations arise in part from the greater number of arteries or veins implicated, but we are enabled also, by the peculiar tint, to judge of the amount of congestion or inflammation, and, in many cases, of the malignity of a complaint. Structures also become red during disease, which are not naturally so. The corpuscular part is not distributed throughout all the tissues in which the liquor sanguinis circulates, hence the absence of colour in parts of the body; but in some affections the corpuscles enter those parts, owing to an increased capacity of their vessels. Increased rapidity of flow will have a similar effect in giving colour to parts. These observations are frequently exemplified in the structures of the eye. So also, a peculiar redness of the blood in phthisis gives the peculiar tint to the hectic flush. From what we know, therefore, respecting the colour of the surface, we can understand why a very florid skin should be set down as a sign of inflammation, and many of the diagnostic and prognostic signs of former times are explained.

2. *A Preternaturally Dark Colour of the Blood and Cutaneous Surface.*—This indicates that the relations between blood and air are imperfectly maintained in the lungs; or that the blood has been tardily circulated in the general circulating system, since arterial blood assumes the venous colour, if at rest; or that the salts of the blood are defective. In the early stage of acute diseases, when the circulation is more oppressed by congestion than excited by inflammation, extravasated blood is unusually dark, "more black than purple," which may be accounted for by the two first causes. In the blue form of cholera, as amply proved by Dr. Annesley, the blood is black, and a marked symptom of the last stage of scurvy is a lividity of skin; in these cases the salts are most likely at fault. The dark colour of the blood is observed especially in diseases and states of disease obstructing respiration, as in asthma and asphyxia. The improved state of our knowledge of the pathology of the solids has enabled us to confirm and to explain many of the prognostic adages of the ancients respecting this darkened colour. Thus, signs were drawn from an examination of the colour of the skin in disease. In acute fevers, and other affections, the surface having been florid or pale, and becoming livid, was regarded as most certainly indicating a fatal termination. So also, in dropsies, particularly ascites, a livid colour of the skin was looked upon as the harbinger of death. We are now for the most part, advised of the precise lesion of the organ affected, but we too much overlook the fact, that the colour of the skin indicates the state of the blood, and it is not the organ, but the blood, which destroys the patient. It is laid down as a principle in disease by Mr. Thackrah, that whenever the blood is darker than natural, and just in proportion to that change, are the vital functions impaired or abolished.

3. *A Preternaturally Pallid Colour.*—It is not my intention at present to enter into the subject of variations in the quantity and distribution of the blood in the system, upon which various degrees of pallor most frequently depend. The conditions in colour, already adverted to, arise from a modification of the colouring principle in different vessels, but there is a series of cases in which this principle is deficient in quantity. Hæmorrhage reduces the colour of the blood remaining in the system, and the reason for this is obvious; the hematosine is much more slowly reproduced than the other con-

stituents. We arrive at this fact not only by an analysis of the blood itself, but by an examination of various parts of the skin of a hæmorrhagic patient. The blood may be sufficient to support life, and its circulation sufficiently rapid, but its colouring matter so remarkably deficient that the whole cutaneous surface is blanched. This paleness of the skin, from deficiency of the colouring principle occurs in many diseases, and, as formerly explained, characterises the lymphatic, as the opposite state marks the sanguine temperament. It has been abundantly proved that the health and vigour of the system depends on a due proportion of the coloured corpuscular part of the blood. The loss of this is so prominent a feature in chlorosis, that Dr. Marshall Hall, has recorded his opinion, that "this disorder affords one of the most unequivocal examples of humoral pathology."

The colour of the blood is modified not only by a change produced in the hematosine of the corpuscular envelopes, but by a change in the colour of the liquor sanguinis. This circumstance is manifest from the various hues which serum assumes, and its effect, together with that of the hematosine must be taken into account in pathology. The various hues of the liquor sanguinis are inferred from the colour of the skin, lips tunica adnata, and in fact from the appearance of the whole external surface of the body, but in judging of the colour of the blood in this manner, it must not be forgotten that the appearance of the external tissues is influenced by the quantity of blood, as well as by more permanent causes than the fluid which at the time circulates through them. There may be colouring-matter deposited in the rete mucosum, as occurs naturally in the coloured races; and account must be taken of the permanent state of density, and of the changes which take place in the relaxation and contraction, of the tissues. But, after considering all these circumstances, the particular hue of the different tissues is undoubtedly influenced by the colouring matter of the liquor sanguinis, which has already been chemically described—the yellow and blue colouring principles.

With respect to the origin and uses of the yellow-colouring principle, it is first to be remarked that the serum of the chyle is colourless, and does not exhibit the slightest trace of it, neither is there any evidence that it is produced in the lungs; on the contrary, when it is accumulated in the greatest quantity in the liquor sanguinis the lungs are not the least disturbed in their functions, and it has never been found modified in the blood in consequence of disease of those organs. I have already explained M. Denis's opinion that it is formed in the portal system, and that it may be regarded as a product of digestion in the wider sense of the term, resulting from the action of the liver on the fluids carried through it from the alimentary canal and spleen. Like the other proximate principles of the blood, both the yellow and blue-colouring matters exist in determinate proportions, which are variable consistently with health within certain limits. Being deposited in minute quantities in the skin, they give to it a peculiar tint, which converts the natural whiteness into a brown, and, with the reflection of the red blood of the individual, stamps his peculiar colour.

We are well aware of the permanent yellow-copper and olive hue of persons and races. This tint varies in degree, not so much on account of an extensive variation in the proportion of the yellow-colouring principle in the liquor sanguinis at the time, but because more or less of this matter being habitually formed, more or less than ordinary is deposited from the blood, in the substance of the cutaneous tissues. This act of nutrition is illustrated by the effects of the internal use of the *nitrate of silver*, the metallic particles of which are ultimately deposited principally in the network of the skin, and give it a grey colour. The uses thus assignable to the yellow-colouring principle, are, 1st, To contribute more than the other materials of the liquor sanguinis to the formation of bile; but, according to the hypothesis of M. Denis, this takes place without its entrance into the blood; 2ndly, To contribute to the organization of the tegumentary membrane, and more particularly to give its peculiar shade; and, 3rdly, That it affords colour to the secretions.

The blue-colouring matter has also been described chemically in Lecture IV, and you are aware that it occurs in so minute a quantity as to defy the efforts of chemical analysis to exhibit it in a separate state, yet its existence is little to be doubted. It has been proved that the blue tint which albumen, and the tissues which contain it, in great proportion, assume, is not essential to the albumen itself, but is owing to a distinct substance superadded to it which is soluble in alcohol. The blue substance of the blood is, as before stated, scarcely known, yet the green tint of the serum in various diseases renders it certain that its quantity is liable to aberrations. It is not certain whether it enters into the composition of any of the tissues, or whether it invariably accompanies the yellow-colouring principle. There is no trace of it in the chyle, and M. Denis imagines that it is formed in the *spleno-hepatic fluid* with the latter. This also, although extremely plausible, is purely hypothetical.

The colour of the liquor sanguinis, and, in fact, of the mass of the blood, is frequently best observed in the schlerotic and conjunctival tunics, or in the mucous membrane of

the mouth and gums. Minute shades are more correctly estimated by inspection of these tissues than from an examination of the serum itself. By their inspection, and that of the colour of the skin in various parts of the body, the practitioner has at all times obtained a knowledge of the state of the living blood. The solidist, in spite of himself, is led by the blood to the organ affected; the humoralist, to the particular fluid. The experienced, of all ages, ancient and modern, have inferred from it the general state of the patient's constitution. By one observation thus made upon the blood he is led far towards determining the vital powers of the system, the parts involved in disease, and the class of remedies that will be required. Thus, a greenish, livid, blackish, or dirty colour of the skin, constitutes one of the most marked symptoms of cachectic diseases, and the cachectic state of the constitution. Icteroid, pale lilac, saturnine, and other hues (some of which are well pourtrayed in Dr. Hall's work on the "Diseases of Females"), denote other distinct forms of constitutional affection; and although, from their more partial occurrence, being oftentimes observed in the complexion, and not in the tunica conjunctiva, Dr. Hall seems to think that they are not so much attributable to the fluids, I cannot help referring them all ultimately to states of the blood. The facts before us serve, to a great extent, in explaining the etiology of these diseases, their symptoms, and progress; a deep yellow colour of the skin and other tissues indicates a superabundance of the yellow-colouring principle of the blood, and the existence of jaundice; it leads the mind's eye of the physician instantly to the portal system; the icteroid hue also frequently precedes the attack of contagious disorders, attends malignant diseases, and is known more especially as a symptom of bilious fevers and acute and chronic affection of the liver. Changes in the colour of the blood frequently furnish us with the most useful knowlege of changes in the state and progress of a disease. We observe in cases of jaundice that when the greenish colour of the skin changes to a clear yellow, the patient is about to get well; after that state of the blood, attended with a greenish hue of the skin, tending to livid or black, the older authors, particularly, have noted that they found the liver diseased, but an observation results from what has already been stated, which should always be borne in mind, and which has been urged very forcibly by Dr. Hall, when treating on the "Constitutional Diseases of Females," that various shades of yellow do not depend alone on affections of the liver, but are frequently more directly associated with those of the alimentary canal. These changes of colour occur very frequently as consequences of poisoning; so also we observe a very pale yellow or greenish cast in the sclerotic coat, indicating a discoloured and deteriorated condition of the liquor sanguinis, and, accordingly, of the whole blood, in chronic affections of the stomach, and it is questionable in many of these cases whether it may not be correct to say that the blood is poisoned.

Deviations from the healthy character of the red corpuscular part of the blood point directly to the thoracic viscera—morbid shades of the liquor sanguinis to the abdominal organs; hence the attention may be directed at sight to the seat of the patient's disorder, sometimes very much to his surprise. These observations on the colour of the blood are known to every practical man, and, to a certain extent, they bear out the *assertion* I made at the commencement, that every practical man is a humoral pathologist.

Recurring to the subject more particularly before us—the comparison between the physical and chemical qualities of arterial and venous blood—our attention is called to the phenomena of *respiration*, or the reciprocal actions exerted in the lungs between the air and the blood—a part of physiology than which none is more important in practical medicine. Having considered change of colour, we will now proceed with those other alterations which, although less obvious, are more vitally important, and I have in the first place to remind you, that the term respiration is not always employed with the same meaning; sometimes it is intended to designate the motions by which air and blood are brought into contact in the animal body; sometimes it refers to the changes which take place between the air and the blood; at other times, both series of phenomena are implied. In this lecture I propose to designate the first, as *the respiratory motions;* and the second, as *the respiratory changes*, in order to distinguish between them.

If you examine the lungs of a salamander during life with a powerful lens, and reflect a moment upon what you see, you will arrive at the irresistible conclusion, that the Designer of the animal fabric constituted those organs for the purpose of bringing the blood into the closest possible contact with the air, without extravasation from its vessels taking place. It is carried through innumerable channels of the smallest calibre, which are expanded over a beautifully-transparent membrane of immeasurable tenuity, presenting an immense surface for the reciprocal action of the elements of living matter. The impression is conveyed to the mind, that the end in view was to bring under the direct influence of atmospheric air the combined fluids which are propelled through the lungs from the right cavities of the heart. I introduce this subject thus formally, in order to impress on your minds what I believe to be the correction of a very fatal error in theoretical and practical medicine. The opinion has been too generally entertained and acted

upon, that the respiratory changes are the result of nervous influence. This view of the case was absolutely necessary on the part of those who advocated the supremacy of the nervous system over the blood, in all the phenomena of life—organic as well as animal—which they have never been able to prove, and against which the facts militate, even as a plausible hypothesis.

In the first place there are very good reasons for separating the respiratory changes altogether from the actions of secretion and nutrition, so that whatever arguments may hold good respecting the influence of the nervous system upon the latter, are by no means applicable to the former. The two things are distinctly and totally different. The one consists in the conversion of suitable new materials into blood, and the regeneration of blood despoiled; the other consists in the separation of elements and principles from blood already formed. The perfection and the purity of the blood are, no doubt, subject to the due performance of secretion and nutrition; but the circumstances under which these are effected, in the body of the organs and tissues, are totally different from those of sanguification in the lungs, so that should it be incontrovertibly proved that nutrition and secretion depend on nervous influence, a distinct proof would be required before it could be admitted that the respiratory changes do so likewise. Let us now consider what those changes are.

The lungs of an adult are estimated to contain, upon an average, in their quiescent state, about 280 cubic inches of air, and at each ordinary act of respiration, about 40 cubic inches, equal to one-eighth of their entire capacity, are inspired and expired. Of this air a slight and variable diminution of the whole bulk takes place, equal to about $\frac{1}{20}$th part of the renewed portion. Sometimes there is a small increase, and at other times a small diminution of the azote; and it has recently been inferred, from the experiments of Edwards, and others, that azote is both exhaled and absorbed. On the quantity of air renewed, about 3½ to 8, or, at most, 10 per cent., of carbonic acid is expired, and a volume of oxygen, greater than this volume of carbonic acid, disappears. From 16 to 24 ounces of water, containing a minute quantity of animal matter, are exhaled in 24 hours. Owing to the quantity of air constantly in the lungs, the action between air and blood, like the circulation of the blood through the lungs, is *constant*. The above proportions are necessarily uncertain, and extremely variable.

That the water is exhaled from the blood ready formed is rendered most probable by the facts, that it is met with whatever the gas respired may be, that the pulmonary aqueous exhalation is increased by the injection of water into the veins, and that if hydrogen were exhaled from the blood separately, we know of no process by which, at the temperature of the animal body, it could combine with oxygen to form water. Since the volume of oxygen lost exceeds the volume of carbonic acid produced, (and this holds good in mammalia, birds, fishes, and most of the lower animals)—since the venous blood has been proved to contain carbonic acid—since it has been rendered highly probable that arterial blood contains oxygen gas—since the experiments of Spallanzani, repeated by Edwards, show that cold-blooded animals exhale carbonic acid when made to respire gases which contain no oxygen, (and in an experiment by Nysten it appears that carbonic acid in fully the usual quantity was exhaled by the human lungs when the air taken in was as nearly as possible azote)—seeing, as we do, the tenuity of the membrane which separates the blood from the air, and being aware of the phenomena of exostosis and endosmosis, or the property of permeability to liquids and gases, possessed by animal membranes—taking these circumstances, with the remarkable affinity for oxygen which blood possesses out of the body, presently to be illustrated, into consideration, it is most feasible, if at all to be doubted, that the carbonic acid, as well as the water is exhaled ready formed, and that the oxygen, as originally maintained by Girtanner is absorbed into the blood. The simple expression of facts may then well supercede the complicated *theories of respiration* which have been in vogue.

Berthollet, Dr. Christison, and others, have shown, that when extravasated blood is exposed to atmospheric air, changes occur closely analogous to those which take place in the lungs, if not identically the same. In Dr. Davy's later experiments, blood from a healthy animal absorbed oxygen gas independently of putrefaction; .33 measures of atmospheric air, agitated with 62 of blood from the carotid artery of a sheep, lost 2 measures; 13 of oxygen gas, agitated with 63 of the same blood, lost 3; 33 common air, with 63 venous blood, lost 6; 13 oxygen gas, with 70 of the same blood, lost 8. The part which disappeared when common air was used, proved to be oxygen gas. Dr. Christison's experiments lead to the conclusion, that when blood is agitated with atmospheric air, a diminution of the latter always takes place. In every instance carbonic acid was either formed or exhaled, and oxygen disappeared. Again, this interchange of principles between air and blood, does not takes place in the lungs only of animals. The experiments of Edwards and others show, that it occurs on the skin; and in pneumo-thorax, abdominal tympanitis, and emphysema, atmospheric air has been found to lose its oxygen and become pure nitrogen. Venous blood exposed in a bladder to the air absorbs oxygen, emits carbonic acid, and acquires an arterial colour.

It would appear then, with respect to the conversion of venous into arterial blood, that the former exhales in the lungs binary compounds of carbon and hydrogen, the azote remaining in larger proportion, and oxygen being absorbed, hence we find that arterial blood affords a greater proportion of fibrin, and, probably, of other quaternary and more animalized materials.

But the discovery that extravasated blood *absorbs* carbonic acid, has complicated this inquiry. According to Dr. Davy, whose experiments have been confirmed by Tiedemann, Gmelin, and Misterlich, both blood and serum are capable of absorbing more than their volume. The following are the results of agitating blood and serum with this gas, at 40° to 51° Fah., under ordinary barometic pressure over mercury, obtained by Dr. Davy :—

TABLE XVIII.

Volume of Carbonic Acid absorbed by One Hundred Parts of Blood and Serum.

No.	Animal.	Venous Blood.	Venous Serum.	Arterial Blood.	Arterial Serum.
1	Sheep	160			
2	Do.	155			
3	Do.			133	
4	Do.	142			
5	Do.			150	
6	Do.	166			
7	Do.				130
8	Ox	194			
9	Do.	181			
10	Man	118			
11	Heifer	120			117
12	Sheep		125	141	125
13	Do.		118		118
14	Man	153			
15	Sheep	160			
16	Do.			159	

To the contrary of the results above recited, Dr. Davy found that blood thus saturated with carbonic acid gave out, at most, but a very minute portion when agitated with other gases—oxygen and hydrogen, for instance,—and he accordingly infers that carbonic acid is not exhaled, but *secreted*, by the lungs, which opinion is entertained also by other physiologists. But the conjoint testimony of Vogel, Bertholet, Brande, Home, Bauer, Scudamore, Dr. Reid Clanny, Hoffman, Stevens, Christison, Müller, Magnus, Gmelin, Bertuch, and Bischoff, that extravasated blood contains carbonic acid, which is set free by various processes, is irresistible, and the existence of the gas in the blood goes a great way towards proving that it is not the product of a secreting action of the lungs. In corroboration of this secreting power, Dr. Davy records the following experiment :—A guinea-pig was killed in about a minute by strangulation, another in about five minutes in an exhausted receiver; the heart of the first was motionless, and distended with black blood, which, by agitation with carbonic acid, absorbed 150 per cent.; the heart of the second was distended with blood of a less dark hue, and its auricles were acting feebly, the lungs were paler than the former and more collapsed, and the blood absorbed 370 per cent. of carbonic acid; but this experiment is equally well explained on the principle of the gas not being duly exhaled, as on that of its not being duly secreted. In connection with this all-important topic, we have to bear in mind that a fluid impregnated with any particular gas, does not give it out so long as its surface is subjected to the pressure of the same gas, and that a remarkable affinity exists between gases, hitherto unexplained by chemists, and denominated by Dr. Stevens a "latent power of attraction;" thus, when a bladder full of carbonic acid is surrounded by atmospheric air, the air attracts the gas so rapidly, that the bladder becomes flaccid, when also a bladder full of air is surrounded by carbonic acid, the air still attracts the acid so rapidly that the bladder bursts, both elastic fluids permeate the bladder, and this permeability of a membrane is greater in a living than in a dead animal. The quantity of carbonic acid contained in the blood, as estimated by the best chemists, is more than sufficient to account for the whole quantity exhaled from the lungs; and, according to the ascertained chemical composition of arterial and venous blood, it would appear that all the oxygen absorbed by arterial blood is not expended during its circulation, nor is all the carbonic acid contained in venous blood, at all times at least, cast off during respiration.

We are indebted to Dr. Reid Clanny for numerous experimental researches on the blood, to which I shall have to refer at a future period, but it should be noticed in this place, that by means of an apparatus invented by himself, Dr. Clanny first discovered carbonic acid, oxygen, and nitrogen gases in healthy blood, both arterial and venous. The following are the average results of three series of experiments made, in each case upon ten ounces of blood :—

	ARTERIAL.	VENOUS.	
Oxygen.....	.056.....	.025	}
Carbonic Acid	.023.....	.056	cub. in.
Azote.....	1.843.....	.613	}

The results obtained by Professor Magnus confirm these, in so far as that the oxygen bears a greater proportion to the carbonic acid in arterial, and the carbonic acid is in greater proportion in venous blood; but the quantity of these gases obtained by Dr. Clanny is smaller, and the proportion of azote much greater, than stated by Magnus. Thus we are indebted to Dr. Clanny for a knowledge of facts which are of paramount importance as regards the respiratory changes of the blood.

According to the views of Professor Schultz, the oxygen is absorbed during respiration by the red corpuscles, and preserved between their vesicular membranes and nuclei. This oxygen is changed into carbonic acid by the elaboration of the nuclei during circulation, and the latter gas is thrown off by the organic contraction of the vesicles as the corpuscules pass the lungs. If this should be confirmed it will constitute the *ultimate* fact with which we are acquainted respecting the function of respiration.

We come back to the important question, Whether the respiratory changes depend on nervous influence? It has been shown that change of colour takes place in extravasated blood as well as in the lungs. It takes place after the division of the par vagum, after decapitation, and under many circumstances totally apart from any agency of the nervous "system." The same may be said of the interchange of gases. Although it can be little doubted that there are hidden effects in this mysterious process, which man's ingenuity cannot fathom, the alterations in the gases both of blood and air, and those of colour, are among the leading known respiratory changes. None of these changes are essentially disturbed for some time after the division of the par vagum, although, of course, the animal dies a few days after the operation. Division of the sympathetic, on both sides of the neck, has been found to be attended with no important consequences whatever. Hence it is that Müller, one of our best physiologists, states, at most, that the "chemical process" of respiration is, "probably," in part dependent on nervous influence. In favour of nervous dependence it has been urged that the par vagum receives fibres from the sympathetic at its lower part; still it is a most completely gratuitous inference that the undisturbed continuance of the respiratory changes, after the division of the vagus, is attributable to them. There is not, that I am aware of, a shadow of proof that such is the case. It is calculated to reconcile the hypothesis of secretion in the lungs with secretion elsewhere, but nothing more. Legallois and Dr. W. Philip have also noticed the effusion of a bloody frothy fluid in the lungs, and red patches on their surface, after the division of the par vagum, but the latter were always in proportion to the degree of congestion, and we constantly find serum and even blood effused from compression, both before and after death, the respiratory actions being mostly performed slowly, and always imperfectly. How much better would it be to confine ourselves to simple facts. We witness the reciprocal changes between blood and air, the nervous cause is purely hypothetical. The organic nervous hypothesis has led us into "ratiocinations," equally intricate with those of the Galenic system of the four elements with four qualities in four degrees, and, carried to the extreme, as it has been, with the powerful therapeutical agents possessed by the moderns, there is reason to fear that it has been fraught with more fatal consequences.

These observations apply to the respiratory changes. As to the respiratory motions, they are clearly—demonstrably—referrible to the nervous system. Man is a sentient as well as a rational being; like other animals, he is designed to supply all the wants of his complicated economy by means of sensation. The sight, hearing, touch, taste, and smell, lead to all those actions and enjoyments which, in great part, constitute his animal and rational nature. Even his organic being is destined to be supported by means of sensation; he is hungry, and seeks for food; and, in the same way, the air he breathes is supplied to him, however unconsciously, in consequence of the sensation which arises of its necessity. These are the phenomena of the nervous system of animals. I believe they are one and all, without exception, referrible *to a reflex law of action*. The par vagum is a complex nerve of sensation and motion, and the act of respiration is a reflex nervous function. These functions may cease, and organic existence continue for a time, but it will soon succumb, since animals are not purposed for vegetative existence. This proves that all, and every part, are intimately connected with, constituted for, and influenced by, nerve and its efficient cause of action; but, on the converse side, nerves are developed and nourished by the blood; they receive their new materials from, and give up their effete materials to, the blood, and there

is reason to believe that their efficient cause of action, whatever it may be, emanates from the blood itself.

Let us then, Gentlemen, dispense with the hypothetical part of the medical reasonings of the present day, and confine ourselves, for practical purposes, to the facts. I am quite satisfied, that so far as the theory of respiration goes, this course will be found of great value in the sick chamber. Let us study and impress upon our minds the indispensable relations of blood and air for the health and vigour of the animal economy, for the due performance of nutrition, secretion, and all our complicated nervous, muscular, and intellectual powers. A due regard to this part of the physiology of the blood would establish some of the most correct principles of hygiene and therapeutics.

Corrigenda.—Page 685, line 11, *for* 839, *read* 913; line 12, *for* 852, *read* 903.

LECTURES

ON THE

FUNCTION AND DISEASES OF THE WOMB,

Delivered at his Class Room,

Bartholomew-Close, St. Bartholomew's Hospital.

BY CHARLES WALLER, M.D.

LECTURE VII.

Malignant ulcer of the womb—generally occurs after menstruation has ceased.—Symptoms in the early and in the more advanced stages of the disease.—Peculiarity of the pain; disease commences in the membrane covering the os tincæ; differs in its appearance from carcinoma; substance of the uterus in general not affected.—Treatment, palliative, except at the commencement, before ulceration has taken place; treatment when ulceration has occurred; various other ulcerations of the os uteri.—Cauliflower excrescence; symptoms.—Sir Charles Clarke's opinion as to its cause.—Prognosis always unfavourable regarding life; favourable and unfavourable symptoms as to duration of life; may be mistaken for placental presentation.

MALIGNANT ULCER OF THE WOMB.

THE os and cervix uteri are occasionally the seat of ulceration, which, from its character, has been termed "malignant," although it differs materially from what are usually called the malignant diseases, viz: cancer and hæmatoid fungus. Women are very seldom the subject of this affection until they arrive at the age when the monthly function of the womb ceases, and this observation will apply to most of the other dangerous varieties of uterine complaints, for as long as the local flow is continued, the tendency to morbid action appears to be prevented from developing itself; but when the vessels are no longer relieved by the evacuation, the hitherto latent germs of disease begin to manifest themselves, and, unless checked by appropriate treatment, soon acquire a fearful degree of maturity.

Symptoms.—The symptoms which precede the formation of ulcer are too frequently those which excite no alarm in the minds of our patients, particularly as they always expect some uneasy sensations at "the turn of life." A sense of heat in the vagina may be mentioned as one of the earliest signs, varying in intensity; in some hardly deserving the name of *heat*, the natural temperature being but slightly increased, whilst in others the sensation is described as being almost intolerable. A thin acrimonious discharge is also noticed, its quantity sometimes very small, but its quality remarkably irritating, so that, unless cleanliness be observed, the surface over which it flows becomes inflamed, and afterwards excoriated. Soon, however, this discharge becomes purulent, often mixed with blood, and highly offensive. As the disease advances, there are occasional hæmorrhages to a serious extent, produced in consequence of the coats of some of the larger vessels being destroyed by the ulcerative process.

The constitution soon gives way under these repeated drainings, the face becomes pale and sallow, muscular strength is diminished, the pulse feeble and rapid, and, in short, all the usual symptoms indicating prostration of the powers of life are observable. Pain is an uniform attendant on this form of uterine disease, but of a peculiar kind. When I speak of cancer I shall take occasion to repeat the observations, now about to be made, respecting the different kinds of pain experienced in the two diseases. In cancer, intense and agonizing pains are experienced, and these are described of a lancinating or stabbing character; in the malignant ulcer, they are designated of a burning or scalding kind, so that you could, from that circumstance, even prior to an examination, form a tolerably accurate opinion whether your patient were suffering under malignant or cancerous ulceration.

Malignant ulcer of the uterus commences in that portion of the vaginal membrane which is reflected over the mouth of the womb, soon extends over its whole surface, and, penetrating to the parts beneath, destroys entirely the os uteri; the cervix is next attacked, and in some rare cases the female has lived until nearly the whole of the organ has been removed by ulceration.

I show you two very interesting specimens of the disease, one presented to me by my friend Mr. Pereira; the subject from whom it was taken was a patient of the

General Dispensary, Aldersgate-street, who died of fever. So little inconvenience was experienced, or at least so little impression was made upon her mind, that Mr. P.'s attention was not even directed to the uterus, and yet observe the ravages made by the ulcer; the whole mouth and part of the cervix completely gone. But notice also the upper portion of the organ; there is not the slightest apparent deviation from the healthy condition, no redness, no enlargement, no thickening. It is this circumstance which in so striking a manner characterises this variety of uterine ulcer. When you make an examination per vaginam, you easily distinguish by the touch to what extent absorption has taken place, but every part, with the exception of the actual seat of the ulcer, appears healthy. Even in some of the worst cases, where the bladder and the rectum have been involved, there has still been no thickening of the adjacent parts. In but few instances, however, do we find ulceration extending beyond the womb itself.

Treatment.—When ulceration of this kind has occurred, the powers of nature are never equal to restore the part to its natural condition; this, I believe, to be the concurrent testimony of our most celebrated practical men. Sir Charles Clarke says, "When once the ulcerative process has commenced in this disease, the part attacked by it never, as far as the author's experience has gone, recovers its healthy structure, but increased action of the blood-vessels of the os uteri, which would eventually terminate in ulceration, may, probably, be diminished or controlled, so that the ulceration may not take place, and by such a mode of treatment much advantage is gained."

Another author states, that though the cure of this ulcer is exceedingly difficult, and notwithstanding it is "nearly as severe as cancer itself," yet it has been cured by "mercury alone, or combined with hemlock, hyoscyamus, and other narcotics." My own experience induces me to coincide in the opinion of Sir C. Clarke, and I therefore wish to impress upon your minds, I had almost said, the *awful* necessity of attending to the symptoms antecedent to the formation of ulcer. My opinion, formed from not a very limited circle of observation, is very decided as regards *this* and most other species of malignant disorganizations of the uterus; viz., that inflammation is their cause, the *fons et origo mali;* that it is not essentially specific in its character, but observes the same laws, and yields to the same treatment, as any ordinary case of inflammation; that the specific character, which the disorder afterwards assumes, depends not upon the application of any peculiar exciting cause, but that the character of such disease is determined by the tendency which exists in the individual constitution; and, lastly, that therefore the same immediate cause produces in one, simple inflammation, with chronic enlargement; in a second, malignant ulcer; in a third, carcinoma; and in a fourth, cauliflower excrescence. Do not, therefore, as you value your own reputation, and the well-being of those patients who commit themselves to your care, do not negligently pass over, but, on the other hand, carefully attend to, the *slightest* symptoms of uterine uneasiness, more especially if they appear when the menstrual discharge is about finally to cease.

I have already told you, that in some the flow gradually lessens, and by degrees disappears without any uncomfortable sensations being experienced; this, however, though "a consummation devoutly to be wished," is not often the case, for almost every female, even where there is no tendency to malignant disease, feels some annoyance at this period, and as we seldom know before-hand what is *the* affection to which the constitution may be predisposed, it behoves us to treat every case with the same attention we should direct towards it if we were certain that life or death would be the result of our remedial plan.

Suppose, then, a patient applies to you at about the age of forty-five, complaining of heat in the genitals, pain in the back, dragging sensations about the hips, uneasy feelings in passing urine, with or without tenesmus, do not dismiss her with such a sentence as this, "Well madam, you must expect all these uneasy feelings at your age, but if you have patience they will subside." True, they *might* disappear, but it is equally true that these symptoms are very often the forerunners of fatal diseases; consider, therefore, such a case to be at least one of threatened malignancy, and attack it accordingly. The removal of blood will be suggested to your mind as likely to relieve incipient inflammatory action; in some persons who are of plethoric habit, where there is force as well as frequency of the arterial circulation, it may be removed from the arm, but in most, cupping from the loins, or leeching the vulva, will be sufficient; the latter method I would recommend, believing it advisable to empty the vessels in the immediate neighbourhood of the disease. After the lapse of a longer or shorter interval, which must vary according to the circumstances of each case, the blood-letting should be repeated. If, after the application of the leeches, discharge of a leucorrhœal character makes its appearance, you may regard it as a good sign, and should by no means endeavour to check it.

Purging, to a moderate extent, is required, and for that purpose you employ the alkaline aperient prescribed in a former lecture, with or without the hyoscyamus, as the nature of the case may require. Although

powerful purgatives, as is well known, will, in many instances, quickly reduce inflammatory action, yet here, from the proximity of the rectum to the womb, if you were by drastic aperients to act violently upon the former you would of necessity irritate the latter. A warm hip-bath, the temparature of which is not very high, say from 90 to 93 degrees, should be used every evening, the immersion to be continued until a slight degree of faintness is beginning to be felt; after this a sufficient quantity of any anodyne may be given to procure rest for the night. Long-continued fomentation of the part itself will often lessen pain, and this may be easily effected by throwing up the vagina by means of a syringe, warm decoction of poppies or of hemlock; the diet must necessarily be abstemious, and everything which excites the action of the parts avoided; should the female be married, she should be advised to separate from her husband for a time.

This treatment, then, is proper, and, in many cases, will be successful if you have an opportunity of putting it into practice before ulceration has taken place; when, however, you have the ulcer actually formed, you must, I fear, entertain very slender hopes of a cure, although, by proper management, relief, to a certain extent, may be obtained.

It is of the first importance that the offensive discharge be removed from the parts, and not suffered to irritate the delicate vaginal membrane; warm fomentations, before mentioned, will answer your purpose very well at first; but when the discharge is in large quantity, or where hæmorrhage supervenes, some cold astringent solution is to be substituted, *e. g.*, a weak solution of sulphate of zinc, sulphate of copper, &c., in decoction of oak bark or galls. A pencil of nitrate of silver has been used by some, introduced through the speculum, and applied to the ulcer itself, with a view of destroying the diseased ulceration, and of producing a healthy sore beneath. I am not prepared to say that this would be a useless application where the disorder is confined to a small surface; at the same time, the irritation produced is so great, that a reasonable doubt may be entertained respecting its efficacy; it is a plan not adopted by myself. The operation of cutting away the os and part of the cervix uteri, as proposed and practiced by Lisfranc, would be much more likely to remove the disease altogether, but of this I cannot speak from experience.

The horizontal posture must be constantly kept to; you cannot too strongly enforce upon the mind of your patient the necessity of strict obedience in this particular. Where the strength is failing, and emaciation rapidly advancing, a more nutritious diet will be required, care being taken to avoid stimulants; a tonic remedial plan is also indicated; the mineral acids are very agreeable, and serviceable also; they may be combined with any bitter infusion; the hydrochloric acid is peculiarly grateful to a weakened stomach, though sometimes it disturbs the bowels.

Other ulcerations are sometimes seen on the neck of the womb, such as the syphilitic, scrofulous, &c.; these should be treated in the same manner as when they are externally situated. In scrofulous abscess of the glands of the os uteri, the cheesey-looking matter, peculiar to that affection, will pass away mixed with the vaginal discharges.

Cauliflower Excrescence of the Os Uteri.

This disease has been so designated, from the tumour bearing some resemblance in its texture to the vegetable of that name; it consists of a larger or smaller swelling, which possesses a considerable degree of firmness, made up of an indefinite number of projecting bodies, varying in size and figure, being in some parts rough, in others smooth. It grows from the exterior of the os uteri, and has never yet been discovered within the cavity. The enlargement in some is rapid, in others slow; this depends upon the constitution, in part, and partly upon the condition of the vagina, whether it be relaxed or firm.

The tumour is covered over by a membrane, which secretes a limpid, watery fluid, the quantity of which necessarily depends upon the size of the swelling, as it is poured out from the whole of its surface; whenever, therefore, the discharge is copious, we may be assured, before an examination has been made, that we shall find extensive disease; at the commencement there will be little more than the ordinary moisture of the parts; this will increase until it becomes inconvenient to the patient; but as no pain is felt, her mind is not impressed with the idea that she is labouring under disease; at length the constitutional powers begin to fail, the countenance becomes sallow, and great weakness supervenes, or, perhaps, she is alarmed by the sudden irruption of a large quantity of blood; this hæmorrhage may occur spontaneously, or, probably, be brought on by exercise, or by some sudden concussion of the body; where this has once taken place it is apt to be renewed by very slight causes, and then the powers of the system are speedily reduced. Sir C. Clarke remarks, that fatal syncope has been known to follow one of these hæmorrhagic attacks; œdema is a very common attendant in the latter stages of the complaint, the patient being carried off by dropsical effusions into some of the cavities of the body, and thus may be said to have been destroyed by the remote *effects* of her original disease. In the post-mortem inspection of those who have died from cauliflower excrescence, no distinct tumour, but a

mere flocculent appearance, has been observed, growing from the os uteri. With the cause producing the disease we are not fully acquainted; it seems, however, to be a vascular and, in fact, an arterial tumour, and the conjecture of Sir C. Clarke appears so reasonable, that I shall read you what he has said respecting it:—"Hitherto it has not been ascertained what circumstances produce in the parts a disposition to take on the formation of this disease. It might be conjectured that an injury, inflicted upon the os uteri in labour, either by the head of the child, or by violent attempts made to dilate it, might become an exciting cause; but many examples are to be met with, in which such injury has been done to the os uteri, and no such disease has followed. Married women, who have never been pregnant—nay, single women—are liable to the complaint, in whom no violence can have been offered to the os uteri; it cannot be traced to any syphilitic cause; the common prostitutes of this metropolis are by no means more liable to it than any similar number of women in different stations of life. The disease arises as often in the strong and in the robust, as in the weak; in persons who live in the country, as those who live in large towns; in those whose situation in life obliges them to labour, as well as in those who, from their rank in society, sometimes consider themselves privileged to be useless members of it. No period of life, after the age of twenty, seems to be exempt from the disease. The author has known it fatal at the age of twenty; and he has met with the disease at different periods of life up to old age. The complaint may arise, perhaps, before the woman has reached her twentieth year, but no such case has occurred in the experience of the author.

"It has been observed above, that arterial blood escapes from the tumour when injured; indeed, the tumour appears to be made up of a congeries of blood-vessels, and those blood-vessels, arteries; the infinitely small branches of these vessels, terminating upon the surface of the tumour, exhale, in the most abundant manner, an aqueous fluid. Perhaps some small arteries, near the os uteri, may undergo that morbid dilatation of their coats which is analagous to aneurysm in larger trunks, and thus the disease may be produced. Something similar to this takes place in the arterial or blood-red nævus; but there, the surface being covered by cutis and cuticle, no moisture of the part is met with; but if the surface of such a nævus be injured, arterial blood escapes. May such a state of blood-vessels exist at the time of birth, remain concealed in early life, from the very small quantity of blood which circulates in the organs of generation at that age, and be developed at that period at which blood rushes with greater force, and in greater quantity, to enlarge those organs, and in the female to render them fit for the performance of new duties? It may be that the increased circulation which is present at puberty, may not be sufficient to elicit the phenomena of the complaint; the stimulus of marriage may be required in some, whilst in others the further development of the organs in pregnancy, or the exertions of labour may be necessary to call forth the morbid symptoms of such hitherto dormant disease."

The vaginal examination of these patients should be conducted with caution, as a rough examination would break down the tumour, and produce considerable hæmorrhage.

Prognosis.—When called upon to give an opinion, it must be always unfavourable as regards life; but there are circumstances to be taken into the account with regard to its probable duration. The favourable symptoms are, 1st, The health of the female not being impaired. 2ndly, The tumour being small, not occupying the whole of the os uteri, but only a portion of it; the discharge being in proportion to the extent of surface from whence it flows will here be much less; again, the blood-vessels are smaller, and, therefore, hæmorrhage will be much less profuse. 3rdly, A firm and contracted state of the vagina, the pressure of which tends much to retard the growth of the tumour. 4thly, the female being unmarried. Whatever determines blood to the part will, more or less, cause an increase of the swelling, as it is entirely composed of arteries. Moreover, repeated coitus will relax the parietes of the vagina, thus producing a double disadvantage, for you not only have an increased flow of blood to the tumour, but a diminution of resistance on the part of the vagina; if, then, the patient be unmarried, the chance of life being prolonged is much greater. The unfavourable signs are the reverse of these; the patient's constitution giving way, the tumour occupying the whole surface of the os uteri, the discharge profuse, the vagina relaxed, and, lastly, the patient being married. Again, if married, she may become pregnant; when, from the greatly-increased capacity of the uterine arteries during that state, the tumour rapidly increases in size.

If a female, affected with cauliflower excrescence, should prove with child, and you have no opportunity of examining before labour comes on, you would, probably, at first mistake the case for placental presentation, in consequence of the profuseness of the hæmorrhage, for the blood will then come away in most alarming quantities.

I have already told you there is no *cure* for this disease. In the next lecture we shall consider what means are best adapted for the relief of those unfortunate individuals who are the subjects of it.

CASE OF CARDITIS.

To the Editor of THE LANCET.

SIR:—As cases of carditis are, I believe, rare, I trust the following is of sufficient interest to merit insertion in your valuable Journal. Your obedient servant,

J. C. ATKINSON.

Romney Terrace, Westminster,
Feb. 1st, 1840.

On the 18th ult. I was called in to see an intelligent little girl, æt. 11 years, who presented the following symptoms: pulse very frequent and irrepressible, ranging from 160 to 170; tongue dry and brown-furred; bowels constipated; skin hot; respiration somewhat oppressed, though she did not complain of pain or difficulty in breathing; countenance anxious; heart's action hurried, and not in harmony with that of the pulse; extremities cold; disinclination to the slightest motion. She admits that for some weeks previous to this severe attack, the least exertion caused pain and increased action of the heart, of which she had not complained to her parents, generally finding relief by laying down for a short time. From the above symptoms (which I have been somewhat minute in giving) I concluded this to be a case of carditis, and that active measures must at once be resorted to.

To lessen the irritability of the heart, I immediately bled her to eight ounces; prescribed a powder, with iij grs. of calomel and ij grs. of antimonial powder, to be given instanter, and the following mixture, a tablespoonful of which was to be taken every three or four hours:—

Carb. of soda, ℈ 3;
Tinct. of digitalis, 15 drops;
Sulph. of magnesia, ℥ 3;
Tinct. of hyoscyamus, 20 drops;
Cinnamon water, ℥ 3.

The extremities to have warm flannels applied, and enjoined perfect quiet. In the evening I found the pulse still rapid, but somewhat compressible. A blister was applied over the region of the heart, and, as it was desirable to promote diaphoresis, a warm bath was had recourse to.

Jan. 19. My little patient had passed a restless night; the blood presented the usual appearance of inflammation, the buff appearing nearly ¼ of an inch in thickness. The heart's action still continuing hurried, 150, I again bled her to *eight ounces*, and four leeches were applied around the edges of the blister, which was kept open; the bowels had been relieved; the tongue still very dry and furred. The powder and mixture were continued. In the evening my patient was somewhat better, though the pulse was still irritable. The warm bath to be repeated, as the extremities were cold. Forty minims of the os hydr. in mint; an ℥ was given the last thing at night.

20. Passed a much better night, and though the dose of the tinct. of hyoscyamus was great for such an age, yet it seemed to have calmed her, as she had been in a very perturbed state during the day; every symptom was relieved; pulse 130; tongue less dry; bowels well opened; countenance less anxious; some warmth in the extremities, the arterial circulation being still excited; and though my little patient was very much averse to it, yet I felt it necessary to take *eight ounces* more of blood, and six leeches to be applied as before. In the evening, I found the pulse 108; tongue moist; skin much relieved; countenance appearing more natural. To be again put into the bath, and to take the night draught, as before; the other medicines to be discontinued till morning.

21. Mrs. C. informed me that her daughter had slept for some hours, had been perfectly quiet, and hoped I should not think it necessary to take more blood. I was much pleased to find the pulse had been lowered to 90, compressible; other symptoms improving. To continue the medicines; the quantity of digitalis was lessened; to have barley-water, with muriate of soda, ℈i, in each cupful, as the blister had caused some irritation of the bladder. In the evening I found her not so well; the pulse had again risen to 110; more anxiety in the countenance; restlessness attributable to the blister. Ordered six leeches to be re-applied, and the warm bath; the draught omitted.

22. Much better; pulse reduced to the natural standard; tongue clean; skin moist; evacuations copious; in fact, she completely recovered, requiring occasionally a gentle aperient.

I think this may be called a case of carditis. On reading Dr. Eber's work, "On the Diseases of the Heart and Arteries," I find the pathognomonic symptoms of carditis, "Remarkable anxiety and disturbance of the patient; deep-seated pain in the region of the heart; very frequent and irrepressible pulse; tendency to fainting on motion; deep expression of suffering on the countenance; severe palpitation; want of harmony between the pulsation of the heart and arteries. The characteristic difference between carditis and pericarditis is, that in the latter disease there is no contraction of the features, nor are the extremities cold, as in carditis; the other symptoms are often mixed, and are not so easily distinguishable." In the year 1835 I had attended my patient with pneumonia, and whether that disease might have caused, or encouraged, a predisposition to the present is a question. On enquiry, I found that her sister died of carditis, when about 10 or 12 years of age. Mrs. C. "frequently has a

sensation, as if her heart was violently agitated, but so momentarily, that it goes as soon as it comes" (to use her own words), leaving her perfectly well. Perhaps the quantity of blood taken from a patient of so tender an age might surprise some of your numerous readers, yet, when we consider the certain relief afforded, and strength, not debility, produced by its abstraction, I think it was imperatively necessary in me to make free use of the lancet, with the view of relieving the irritability of the heart and the excited circulation; the digitalis seemed to act as a very efficient auxiliary.

CASE OF CANCER OF THE BRAIN IN A CHILD.

BY P. HENNIS GREEN, M.B.

Cancer of the brain is an extremely rare affection; it is still more rare in children than adults. The following is the only example which I have seen in more than 800 cases of cerebral disease occurring amongst children:—

Philip Proteau, 12 years of age, was admitted into hospital on the 18th May, 1833. For the last six months this child had experienced convulsive attacks confined to the right side of the face, trunk, and right arm; each access was preceded by headach and numbness of the arm, and recurred frequently; no other symptom of disease of the nervous system was perceived. The treatment first employed consisted in the administration of valerian, with cold and tepid baths. Soon after his admission, however, a number of boils appeared all over the body, and their existence seemed to exercise a salutary influence over the convulsive attacks. The latter diminished very considerably in number, but recurred on the disappearance of the boils, with their usual frequency. The patient was now sent to one of M. Guersent's wards, where the following symptoms were noted:—

After having experienced some headach for two or three hours, the boy felt some numbness in the right arm; he then felt a sensation as if something ascended from the back of the hand to the chest, and immediately afterwards the limb became affected with convulsive movements. The muscles of the right eye, and of the right side of the face and chest, were also convulsed; the access lasted for two or three minutes and then ceased; the patient never lost consciousness, nor presented any appearance of one labouring under epilepsy; during the convulsive movements he was able to answer with the utmost clearness any questions, but the articulation of sounds was slightly impeded.

The disease was judged to be a simple neurosis, and anti-spasmodics were liberally administered. The oxide of zinc, with extract of hyoscyamus, was first given, and the dose gradually augmented, until, on the 15th of July, the child took 30 grains of each during the day; cold baths were given at the same time. To these remedies the disease seemed to yield, and the accesses becoming much less frequent the child left the hospital on the 2nd of August; for the last 15 days he had been perfectly free from convulsive movements.

The cure, however, was only apparent; the convulsions returned in a few days after his departure, and he was readmitted on the 4th of September. He now remained in the hospital until the commencement of 1834. During this period the power of moving the right arm gradually diminished, and was, at length, completely lost; the boy frequently complained of pain in the left side of the head.

In this condition he continued until the 17th March, when he suddenly fell into a state of coma, accompanied by contracture of the limbs. He was immediately bled, but without any relief.

19. Face flushed; lips pale; complete coma; squinting of the right eye, the pupil of which is contracted, and motionless; left pupil dilated; upper extremities contracted; the forearm firmly flexed on the upper arm, this contracture being more strongly marked at the right side; the sensibility of that side, also, is diminished; skin cool; pulse small, irregular, 76; respiration deep, regular, 20; tongue clean and moist; no vomiting or nausea; bowels constipated; abdomen retracted and free from pain; no trismus or other convulsive movement; purgative lavement; a seton in the neck. During the day, delirium, with plaintive cries.

On the 20th the symptoms continued without change.

On the 21st, skin cool; pulse regular, 144; respiration 20; right pupil extremely dilated, and insensible to the light; left pupil in its natural state; right arm firmly contracted; occasional delirium.

As the purgative lavement had no effect, two drops of croton oil were administered. These, also, producing no effect, two more drops were given, which brought away two copious evacuations during the night.

22. Pulse 132; right arm still contracted; in the night delirium, alternating with somnolence. Three drops of croton oil were administered.

23. The medicine has produced several stools; contracture of the right arm diminished, but the loss of vision continues in the right eye; the patient now answers correctly when spoken to.

On the 24th and 25th this apparent improvement continued, but on the 26th he again became delirious; the face was highly

flushed, and he cried constantly; two drops of croton oil were administered.

30. Complete coma; respiration stertorous; pulse insensible; sensibilty and motion entirely lost; strabismus. These unfavourable symptoms followed the application of leeches behind the ears, and terminated in death at 7, P.M.

Body examined 38 *Hours after Death.*

Head.—Skull well formed. On the left side the dura mater adheres to the cerebral membranes, to the extent of two inches square. On the surface of the middle lobe of the left hemisphere, at the point where the dura mater adhered, is seen an encephaloid tumour, of the size of a hen's egg; it is irregular in form, inclosed in a cyst, and contains numerous bloody points not larger than pins' heads, but is not softened. The tumour extends into the lateral ventricle, and has destroyed the whole of the left corpus striatum. The nervous tissue surrounding the tumour, is completely diffluent, and behind there is a serous-looking cyst, which contains about three ounces of clear fluid. This cyst is merely separated from the ventricle by a layer of membrane resembling a serous one. The adjacent nervous tissue is but slightly softened. Optic nerves intact; rest of the brain and spinal marrow healthy.

Chest.—The viscera contained in this cavity are quite healthy.

Abdomen.—The mucous lining of the great curvature of the stomach is softened. The mucous membrane of the small intestines is of a rosy colour, and somewhat softened also; in several points they contain mucus, tinged with blood. The other viscera are healthy.

THE HYDRENCEPHALOID AFFECTION OF INFANTS.

To the Editor of THE LANCET.

SIR:—I should feel obliged by the insertion of the following remarks on the "hydrencephaloid affection of infants," and its treatment, in your valuable Journal. Your obedient servant,

EDWARD HOCKEN.

15, Featherstone Buildings,
Jan 30th, 1840.

Exhaustion, with coma, is much more liable to come on in infants after decided measures have been employed to stop the rapid and so frequently fatal progress of disorganization which arises from the inflammation of some important organ during the early periods of life, than is usually supposed. The inflammation, perhaps, is checked; the threatening symptoms of suffocation (if the lungs are affected) no longer remain; the cough has materially changed its character; the chest sounds well on percussion and auscultation, and, so far as the lungs are concerned, all the symptoms are proceeding favourably, and tending to a happy and speedy recovery.

But new, and, if possible, still more alarming symptoms, have made their appearance on the subsidence of those of thoracic disease. The infant becomes affected with many signs, nearly resembling hydrocephalus; he lays pale, exhausted, and comatose, in the nurse's arms, but really sleepless, and he is readily roused; he frequently utters dismal and protracted groans, or a most unpleasant whining noise; the skin is cold, very pale, sometimes clammy; the features collapsed, and very expressive of languor and anxiety; the pulse feeble, frequent, rarely intermittent, symptoms which are much aggravated by any form of depletion, but ameliorated by nutritious food and stimulants. These indications of exhaustion terminate rapidly; if the proper treatment be withheld, or improper remedial measures employed, the depression becomes greater, the pulse more rapid and feeble, and the child sinks into a fatally comatous condition. Dr. Gooch has, in two cases, however, seen, during the last few hours, symptoms of oppressed brain, such as coma, stertorous breathing, and dilated and motionless pupil.

This condition may come on from any cause of exhaustion besides loss of blood, as from diarrhœa, excessive purging, &c., as is the opinion of Dr. Marshall Hall and Dr. Abercrombie. Dr. Gooch, however, describes the affection as resulting without any apparent depleting or exhausting cause, and to be an idiopathic disease, the prominent symptoms of which are those of collapse and debility.

This hydrocephaloid affection so nearly simulates inflammation of the central parts of the brain, with effusion into the ventricles (hydrocephalus), that these two opposite pathological conditions have been, and indeed are, frequently mistaken, and consequently improper treatment has been pursued, to the great injury, if not to the certain death, of the unfortunate patient. How necessary is it, then, to discriminate them, to detect these deceptive symptoms, and trace them to their proper source; for, under the action of nutritious food, stimulants proportioned to the age and strength, and very *minute* and *carefully regulated doses of laudanum*, the sinking infant revives, and once more gladdens its parents, to the credit of the physician's diagnosis and discernment, and his skill in remedial measures.*

As regards the administration of minute doses of laudanum with nutritious food and stimulants, I may remark that it frequently proves of the most marked and decided

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* Hocken on "Constitutional Influence in the Production of Disease."

advantage, procuring tranquil sleep, diminishing restlessness, and the appearance of anxiety and suffering, from which the little patient awakes refreshed and tranquil.

This treatment was pursued in the following case:—

An infant, about twelve months old, was attacked with severe and rapidly-increasing bronchitis; there was frequent and suffocative cough; great difficulty of respiration; acute fever. The chest, on auscultation by percussion, sounded equally well on either side, but there was pretty general moist respiration on both sides,—small below, large above. These symptoms were removed by leeching and the internal employment of tartar emetic; subsequently, a mustard poultice to the sternum. But to these symptoms of thoracic inflammation succeeded those of exhaustion with coma; the child, after being unusually irritable, became pale, with collapsed features, drowsy, and at length comatose, the pulse being very rapid and readily compressible; but every now and then the irritability returned, and the mother remarked, that although quiet and apparently insensible, it never slept; it moved perpetually.

The breast-milk, small quantities of white wine whey, and any other nutritious article of diet suited for an infant, were directed to be administered frequently, and a teaspoonful of a draught, containing five minims of the aromatic spirits of ammonia, and one-eighth of a minim of tincture of opium to a dose, to be repeated every hour until tranquil sleep was induced, when it should be discontinued until further instructions should be given. This treatment answered perfectly, sleep was procured, and the infant awoke refreshed and much improved, with increase of tone in the pulse and diminution of its velocity. Subsequently the ammonia was used alone, the laudanum being added once or twice to compose and tranquillise; but by stimulants and nutritious food the cure was completed, and health perfectly restored.

STONE.—CHILD AGED EIGHTEEN MONTHS.

To the Editor of THE LANCET.

SIR:—By inserting the following case in your valuable Periodical you will oblige your obedient servant,

M. D. THOMPSON, M.R.C.S., L.

Staleybridge, Feb. 6th, 1840.

On the 31st ultimo I saw, in this neighbourhood, a male child, aged 18 months, labouring under a congenital phymosis, and an œdematous inflammation of the prepuce. The body was attenuated, but the child apparently healthy.

The mother stated that he had generally enjoyed good health, and that he had only suffered occasionally from diarrhœa, until the commencement of the last three days, when he became incapable of discharging his urine, and from that time to the present he had only been capable of discharging it *guttatim*.

The urethra was distended and dilated; and, on pressing with the fingers upon any part of its course, the regurgitation of urine was felt, excepting upon the course of the fossa navicularis, which gave the sensation as if some foreign substance was situated therein, having a short, thick body, and two extremities.

During the examination he pulled violently, several times, his prepuce. His mother, on being interrogated, stated that, during the last three days, he had done so frequently, but never before, nor had he previously presented any symptom of stone.

I extended the foreskin forcibly backwards upon the penis, and kept the orifice of the prepuce as nearly as possible parallel with the external orifice of the urethra. To retain the parts in this state I compressed the foreskin against the penis with my thumb and finger, the one placed behind the corona glandis, and the other behind the fossa navicularis. Having the parts so fixed, I introduced a probe through the orifice of the prepuce, which immediately grated upon a stone, and, subsequently, a pair of narrow forceps, between whose blades I seized the stone, and, by gentle traction, gradually extracted it.

The stone was ovate, and nearly as large as an ordinary pea.

The prepuce was œdematously inflamed, and its aperture small. The parts were in such condition as probably might interrupt considerably the free discharge of the urine. Such, in the present case, might be considered to have been the cause of the retention of the urine, had it not been properly scrutinized.

THE MORE FATAL YEARS OF LIFE.

To the Editor of THE LANCET.

SIR:—I enclose an extract from the First Annual Report of the Registrar-General of Deaths, which I suspect has hitherto escaped your observation. It was drawn up by an esteemed friend of mine, and inserted in the "Hampshire Telegraph" of Nov. 20, last, and as I agree with him in thinking that it will be highly interesting to the general body of your readers, and "open a large field of medical and surgical inquiry," you will not, perhaps, deem it unworthy a place in the columns of your valuable publication.

I have the honour to be, Sir, your obedient servant and subscriber,

JULIAN SLIGHT, M.R.C.S.

125, High-street, Portsmouth,
Jan. 15th, 1840.

THE First Report of the Registrar-General for Births, Deaths, and Marriages, addressed to Lord John Russell as Secretary of State for the Home Department, has just been published. To all those who are fond of such subjects it will well repay the perusal.

For the greater convenience of arrangement the whole of England is divided into 25 divisions. In looking to the return of deaths, I find some most remarkable coincidences, which the accompanying extract will sufficiently explain. I find almost invariably that more people die at the ages of 30, 40, 50, 60, and 70, than either in the year before, or the year after; if we take the middle period of 50, it is entirely so, and the following numbers for the whole of England,

Died at 49 years of age 915
——— 50 ——— 1454
——— 51 ——— 816

Thus showing that at 50 years of age almost as many males died as at 49 and 51 together.

I have only extracted the Table for males, but I have no doubt a similar result would be shown for females.

These results will open a large field for medical and surgical inquiry, as I believe the facts which are now exhibited have entirely escaped our researches. We have sometimes heard that 45 and 50 are ticklish ages, but such an almost uniform result as the present, I believe, has never been dreamt of.

DIVISIONS.	29	30	31	39	40	41	49	50	51	59	60	61	69	70	71
1. Metropolis parts of Middlesex, Surrey, and Kent (population, of Males 797,445)*	166	286	173	211	301	173	195	366	184	173	322	220	146	227	177
2. Part of Lancashire (118,467)	33	47	36	30	55	31	29	41	21	15	48	25	17	32	16
3. Ditto (109,116)	23	46	36	35	60	33	40	65	17	23	41	19	14	39	14
4. Part of Yorkshire (67,790)*	*14	8	13	11	19	18	9	10	7	11	15	12	*14	10	8
5. Part of Warwickshire (55,457)	11	17	10	10	26	11	10	15	3	9	16	11	6	12	7
6. Ditto Middlesex, Hertford, Bedford, and Buckingham (257,946)	34	41	31	27	56	25	32	60	28	41	65	35	43	60	61
7. Berks, Hants, and Sussex, part of Kent and Surrey not in No. 1. (675,618)	126	135	74	87	129	71	89	186	79	99	158	98	118	164	127
8. Dorset and Wilts (186,898)	17	45	27	26	28	13	16	36	16	29	35	26	28	65	39
9. Devonshire (231,359)	31	56	22	23	42	22	33	34	33	30	37	30	40	71	43
10. Cornwall (132,397)*	*17	15	13	10	15	12	13	22	18	24	34	19	21	35	19
11. Somerset (207,626)	29	32	25	25	38	16	21	47	31	28	53	33	33	54	35
12. Essex (132,157)*	19	19	16	15	19	11	16	21	18	20	24	*28	36	42	33
13. Norfolk and Suffolk (341,394)*	*26	23	*33	25	55	30	28	35	26	37	69	46	46	82	60
14. Cambridge, Huntingdon, and part of Lincoln (155,857)*	*25	18	*19	31	30	16	17	22	18	25	28	17	*25	19	*21
15. Derby, Leicester, &c. (522,566)	56	69	60	45	78	48	49	75	32	69	98	67	100	102	73
16. Gloucester and Oxford, part of Warwick and Worcester, (488,554)	63	78	51	58	78	51	56	90	41	63	138	60	83	120	88
17. Salop, Stafford, and part of Worcester (111,758)	15	20	14	16	27	13	17	29	12	16	28	8	7	14	12
18. Part of ditto ditto and Cheshire (260,777)	55	69	52	53	78	30	53	58	49	54	100	54	70	79	68
19. Lancashire, except Liverpool and Manchester (452,750)	74	82	48	61	71	52	72	86	63	55	107	67	61	80	61
20. West York, except Leeds (386,627)	48	65	47	38	70	48	44	58	45	52	82	46	54	61	59
21. East York and City of York (99,757)*	3	12	9	7	19	10	7	20	11	12	24	12	*22	16	14
22. North York, part of West, and Durham (139,521)*	*18	10	*21	12	25	20	17	22	16	17	26	20	21	34	*35
23. Mining parts of Northumberland and Durham (159,470)	27	31	23	26	33	22	15	46	14	31	41	29	22	31	21
24. Cumberland and Westmoreland, and parts of Lancashire and Northumberland (169,136)	21	24	*25	14	23	13	20	27	23	23	41	22	27	34	25
25. Wales, with the Counties of Monmouth and Hereford (858,160)	73	97	67	47	91	37	68	73	47	62	111	75	78	125	69

(* This mark indicates a discrepancy in the general rule.)

THE LANCET.

London, Saturday, February 15, 1840.

The following Resolution was passed at the last meeting of the Council of the British Medical Association:—

"That as various Members of the House "of Commons have strongly urged that "numerous Petitions on the subject of "Medical Reform would be more useful "AT THE PRESENT TIME than at any other, "the attention of the Editor of THE "LANCET, and the Public Press, be di- "rected to the subject, and that *the Medical* "*Profession throughout the kingdom be re-* "*requested to act upon this suggestion.*"

We have repeatedly urged upon our brethren the propriety of waiting upon Members of Parliament, and immediately petitioning both Houses for Medical Reform. But we are quite willing to reiterate the recommendation. We repeat emphatically, and earnestly, that the question rests with the Medical Profession. It is for them to decide whether they will sit quietly under the indignities to which they are now exposed; and see the Medical Corporations stand unreformed—obstructing the promoters of science—exposing the members to the inroads of extravagant quackery—and utterly neglecting the interests of the immense majority of the profession, wherein, as in the Poor-Law matters, the self-elected Councils are not themselves directly concerned. If Medical Practitioners desire Reform—if they think Reform just, useful, and necessary—now is the time to press the question, and to petition Parliament. Reform can only be procured through the Legislature. *Bad* legislation has been the cause of the evils of which Medical Reformers complain. If there had been no legislation on the subject, and no corrupt charters granted by the Crown, the grievances under which the public and the profession now groan, would have been infinitely less intolerable. The errors of ancient legislation can be corrected by legislation—and by legislation alone. *Similia similibus curantur*, although wilfully perverted by the Homœopathists, holds in this instance. The wrong has been done by Parliament and the Government, who, in past ages, rendered themselves the instruments of a few ear-wigging, designing men, when the voice of the Profession was not heard, and no free medical press existed to hold up the selfish schemes and incorporated iniquities to public indignation.

Six Petitions for Medical Reform have been laid in this Session on the table of the House of Commons. But in the examination which we have made of them we do not find that they express the sense of universal dissatisfaction with the present Corporations, which prevails among all classes of the Profession in every part of the kingdom. This dissatisfaction can only be made known to the Houses of Parliament by Petitioning. We therefore repeat the words petition—petition—petition—without further delay. Meetings should be held at least in every county, and Petitions forwarded to the respective Representatives in Parliament. Every Medical Society in the country should send Petitions to the Legislature, and the Petitions should all be forwarded, if possible, in the present month. Mr. WARBURTON's Committee sat in 1834, and what has been done since? We must remind Reformers throughout the country, that unless, like the Leader of Israel on the mountain, they hold up their hands, their friends can do nothing, cannot be expected to do anything for them in Parliament, and would inevitably be defeated in the House of Commons, to say nothing of the House of Lords.

We last week gave an account of the *First Meeting of the North of England Medical Association*. Upwards of 70 members of the Medical Profession were present. Dr. HEADLAM, the late Mayor of Newcastle, was in the chair. The Meeting, the Petition, and the whole proceedings, were in the

highest degree creditable to the zeal and intelligence of the Medical Practitioners of the North of England. We shall be glad to see their example followed in the rest of the kingdom. The Petition is based upon right principles, and goes to the root of the evils. It laments the neglect of the public health—the impunity of quacks—the want of supervision in pharmacy, and the bold and fearful line of practice pursued by druggists in deluding the sick, and prescribing for diseases of which they have not the slightest knowledge. But the Petition does not stop there; it directs the attention of the Legislature to the causes of these abuses—"*the "nineteen sources from whence are obtained di-"plomas and licences to practise, each varying "from the other in the extent of the education "enjoined, and the examination instituted, as "well as in the privileges conferred.*"

Another paragraph points at the great fountain of evil—irresponsible, self-elective Councils:—

"That the Colleges, and Corporate Institutions which at this time preside over the Medical Profession, are wholly unequal to the correction of the abuses complained of by medical men. The constitution of those bodies is defective and objectionable in the extreme, they being, for the most part, governed by self-elected Councils, the members of which are irresponsible, and hold their offices for life. Your Petitioners would beg to represent, that the Members of the Profession are, from their station and respectability, entitled to the privileges, *at least*, of municipal and parliamentary electors, and should be allowed to have some controul over the management of the institutions to which is committed the protection of their interests."

There! What will the renegade WILLIAM LAWRENCE say to that? The Medical Practitioners of the North of England dare to tell the Legislature that they think themselves, "*at least, entitled* to the privileges of municipal and parliamentary electors!"

We cannot help thinking that Dr. LYNCH is not quite serious in his project of Reform. It sounds very like an old-school, free-and-easy theory of the nervous, or some other system.

That Dr. LYNCH is a sincere and zealous Reformer, we are convinced. But why does Doctor LYNCH ascribe to Reformers the attempt to *destroy*, "at one fell swoop" all existing Medical Corporations? No such attempt was ever contemplated. It is not a question of destruction, but of reconstruction. Take the London College of Surgeons, for instance. Of what does the London College of Surgeons consist? Of 14,000 members. *Twenty-one* of the members, under the present charter, constitute the Council; the *Twenty-one* are self-elected, irresponsible, absolutely independent of the *other* members; they expend all the money, and exercise all the power of the Corporation. What does the *destruction* of the London *College* of Surgeons imply? The destruction of the members—as members—and the dissolution of the link which binds them together in a Corporation. But the *Reform* of the Corporation is a very different affair; it is simply restoring to the 14,000 members the right of controlling the Council—by periodical election. This is not *destroying* the Council; it does not even disqualify the present members of Council; they will be eligible as candidates; and so long as the claims of the Twenty-one appear to be legitimate in the eyes of a *majority* of the Profession, they will hold their places—but no longer. And ought they to desire—can any high-minded man desire—to hold their offices longer, or upon any other terms? Have they any other claims to office than their qualification for their places—of which a majority of their brethren will be the best judges? The substitution of a Representative Council for self-elective, irresponsible Councils, is anything but destruction. It would give to the Councils, which have long lost all moral power, and all human respect, new vigour; and is the only chance they have of surviving an inevitable fate. It would be the rejuvenescence of the senile ÆSON:—

——— veteremque exire cruorem
Passa, replet succis.
* * * *
Pulsa fugit macies: abeunt pallorque situsque;

Adjectoque cavæ supplentur sanguine venæ; *Membraque luxuriant.*

Away, then, for ever, with the cant of the *destruction* of the Corporations. Was the *reform* of the Municipal Corporations their destruction?

But to carry out Medical Reform effectually, the Medical Profession must be united in *one Faculty*. The Corporations—the licensing bodies—not the universities or schools, for we have nothing to do with them—the members, we say, of the Corporations may be united, and the licensing bodies consolidated, by election; but, we have yet to learn that the union of the members, and of the isolated powerless Boards, in one body, involves the idea of destruction.

Dr. LYNCH's "Board of Controul," the least reflection must convince him, would prove a most lame and impotent piece of machinery in practice. And it would be infinitely more unpalatable to the present Councils, than the plan which it is to replace. Would any one member of the Twenty-one prefer subjugation under "a Board of Controul," to a representative faculty, wherein he would have a prospect of enjoying the supreme power, delegated to him by an enlightened powerful constituency. Dr. LYNCH, beware of crotchets!

Again, we intreat Medical Reformers to exert themselves in the great cause, which, though it must finally triumph, must triumph by their exertions, intelligence, and PETITIONS.

The Modern Treatment of Syphilitic Diseases, both Primary and Secondary: comprising an Account of the New Remedies, with numerous Formulæ for their Preparation and Mode of Administration. By LANGSTON PARKER, M.R.C.S., &c. Churchill, London. 1839. 8vo, pp. 158.

THIS little work contains a great deal of useful information on the modern treatment of syphilitic diseases. It is divided into sixteen sections or small chapters. The first two embrace the simple and mercurial treatment of the Venereal Disease; the third is devoted to Inoculation, as a means of diagnosis; in sections four, five, and six, Gonorrhœa is described; in section seven, Chancres of the Urethra; in section eight, Primary Venereal Sores; section nine is devoted to Secondary Syphilis; sections ten, eleven, and twelve, to Venereal Affections of the Skin. In the remaining chapters are noticed Warts, Nodes, Pains, &c.

We can recommend Mr. Parker's work to the attention of our readers. It is written in a plain, unpretending manner, yet abounds in interesting and useful information.

We extract the following passages from Mr. Parker's volume, for it would be impossible to offer anything like an analysis of its contents:—

OF INJECTIONS IN GONORRHŒA.

Many surgeons object to the use of injections in gonorrhœa, fearing that they frequently occasion stricture and other morbid conditions of the urethra. I am however of opinion, with Dr. Wallace and Ricord, that a long-continued irritation or inflammation of the urethra is much more likely to give rise to these evils, and hence it is of consequence to cure a gonorrhœa by the means which will accomplish this object most quickly, at the same time they do it safely. It is true, that injections require great caution in their use, and their injudicious employment is frequently followed by serious consequences, but in these instances the blame rests with the surgeon and not with the remedy. Injections should generally be used twice or three times in the day, and the fluid injected should be made to remain in the urethra a minute or two before it is discharged.

In the acute forms of gonorrhœa, injections are inadmissible; they should be employed as soon as this stage is passed, and in cases chronic or indolent from the commencement they may at once be used.

To cut short a gonorrhœa at once, when a patient applies before the acute stage has commenced, Ricord prefers injections of the nitrate of silver, which he employs of the strength of two grains to eight ounces of distilled water,* gradually increasing the strength as long as no irritation is produced. When the acute stage has passed this surgeon generally employs the acetate of lead† for a few days, but has recourse again to the nitrate of silver in stronger solution, if the lead does not quickly suc-

* *Nitrate of silver*, 2 grs.; *Water*, 8 oz.—Ricord.

† *Acetate of lead*, 2 scrup.; *Rosewater*, 6 oz.

ceed. Dr. Wallace recommends the nitrate of silver in the proportion of fifteen grains to the ounce of water, Desruelles, a scruple to the pint, and likewise a pommade to smear over bougies and then pass into the urethra. Dr. Wallace employs the nitrate of silver as long as any morbid sensibility exists in the urethra; when this has ceased, and the discharge still continues, he has recourse to solutions of the bichloride of mercury, the acetate of zinc, or the sulphate of copper; the chloride of zinc has also been lately very successfully employed.*

A vast variety of injections are employed in the various forms of chronic gonorrhœa; those which I have already indicated are most generally used and successful. When the disease has become perfectly atonic, and all morbid sensibility has disappeared, or when the patient is merely teased with a drop or two of mucous discharge oozing from the urethra once or twice in the day, injections of wine are used extensively both by Ricord and Desruelles, and with much success, alone, or combined with tannin.† The infusion of galls with alum is also useful, and lately M. Ricord has employed with great success the ioduret of iron.‡ In weak solutions the ioduret of iron has frequently arrested the gonorrœal discharge in four or five days, in other instances it has brought on an acute attack of urethritis, but in these instances, when the inflammation has subsided, the patient has been cured of his gonorrhœa. In these instances the average duration of the treatment has not been more than seven or eight days; in a third series of cases the patients have been unable to bear the irritation which injections of the ioduret of iron occasioned, and consequently its employ was given up.

In describing Secondary Syphilis Mr. Parker borrows freely from M. Ricord, who divides the phases of syphilis into the primary, the secondary, and the tertiary:—

The primitive symptom or chancre is due to the direct application of the venereal poison by means of sexual intercourse, or inoculation. It is capable of propagation, with all its properties, from one individual to another, by intercourse or inoculation. It is not capable of being transmitted hereditarily; a female having a chancre at the period of parturition may produce in this manner the same disease in her infant.

Secondary symptoms are those which make their appearance after the economy has become generally affected by the venereal poison, by absorption from the primary sore, during which process the matter has undergone modifications which, in some measure, change its character. Secondary syphilitic diseases generally appear on the skin, or mucous membranes, in the eyes, or the testicles, &c. Constitutional syphilis rarely makes its appearance before the second week after the primitive affection, more commonly later, towards the fourth or fifth weeks, or at periods still more remote. These symptoms are not capable of producing their like by inoculation, and thus cannot be mistaken for primary affections. They may be transmitted hereditarily from parent to child.

The tertiary symptoms appear at an indefinite, and generally very long period after the primary diseases, and, in the greater number of subjects, either after secondary symptoms have disappeared, or whilst these are still manifest in the constitution. The diseases which Ricord terms tertiary are deep-seated diseases of the skin, as lupus, and affections of the bones, as periostosis, exostosis, caries, necrosis. To these may be added various internal affections, as yet neither well known, nor described. M. Ricord has presented to the Royal Academy of Medicine specimens of tubercles of the brain, which he believes to be of syphilitic origin. The tertiary symptoms are not hereditary, under any specific form of venereal affection. Tertiary symptoms are not capable of propagation by inoculation.

The section on Syphilitic Tubercles, although brief, contains a correct history of their development and mode of treatment; we shall, therefore, conclude our notice of Mr. Parker's work by extracting it entire:

Tubercles of the skin are deep-seated, solid, circumscribed elevations, containing neither lymph nor pus; they differ from the papulæ in their size, being much larger, more prominent, and better defined. Syphilitic tubercles are either isolated or grouped, of a shining red, livid, or brown colour, surrounded by an areola of a dark-red or coppery appearance. These tubercles are prone to become ulcerated, and form excavated sores with thick and elevated edges, and a foul surface, secreting an offensive pus, which, drying up, is transformed into grey or dark-coloured scabs or crusts. The syphilitic tubercle forms the link of connection between the secondary and tertiary symptoms of M. Ricord; it is the first of that class of syphilitic diseases in which the virus appears to have penetrated more

* *Bichlor. of mercury*, 4 grs.; *Water*, 8 oz.—Wallace; *Acetate of zinc*, 12 grs.; *Water*, 8 oz.; *Sulphate of copper*, 12 grs.; *Water*, 8 oz.; *Chloride of zinc*, 8 grs.; *Water*, 8 oz.

† *Red wine*, 6 oz.; *Tannin*, 18 grs.—Ricord.

‡ *Ioduret of iron*, 3 grs.; *Water*, 6. oz.

deeply into the economy, and to have produced a disorganisation in tissues, which those forms hitherto considered have left untouched.

The flat tubercle of M. Cullerier, or the tuberculous pustule of Alibert, sometimes occurs as a primitive affection, but more commonly as a symptom of constitutional syphilis; in the former instance it is observed in the scrotum, the labia, the vicinity of the arms, or the mammæ. The surface of these tubercles is smooth and flat, of a deep red or copper colour, varying from the size of a sixpence to that of a shilling; they are not so much disposed to ulcerate as the other varieties.

The more common forms of tubercle are conical, or round elevations, dispersed here and there over the skin, or assembled in groups or clusters, which are also irregularly distributed. The size of these varies from that of a pea to that of a large hazel nut, or filbert; they are more commonly situated on the anterior surface of the chest, or the abdomen; on the neck, or the internal part of the arms.

Another variety of tubercle is situated, more commonly, on the alæ and lobule of the nose, or on the forehead; frequently, also, upon the neck of the uterus, or upon the tongue, where they may be mistaken for cancerous affections. These tubercles are commonly assembled in circular groups of variable size; they are so prone to ulcerate, that this termination appears to be one of their natural characters; when in this condition, they are frequently described under the name of syphilitic lupus. The tubercular syphilides are commonly complicated with a scrofulous, scorbutic, or herpetic tendency, or diathesis; their progress is slow, and generally without pain; they gradually increase in size till they terminate in softening or ulceration. They are the most formidable of all the forms of constitutional syphilis, producing great deformity in all the parts invaded by ulceration, and exceedingly difficult to cure.

Whilst the tubercles are in a state of induration, and as yet neither ulcerated nor softened, their resolution may be attempted. For this purpose, M. Ricord employs the ioduret of mercury, with the iodide of potassium; it must be remembered, however, before any plan of treatment is framed, that due attention be paid to the general health of the patient.

If there be no contra-indication, the treatment is commenced by administering a pill of the proto-ioduret of mercury daily, containing one grain of the salt combined with conium, or opium,* and the solution of the iodide of potassium, at first administered in doses of ten grains in the day. On the fifth day, two pills are given, and the quantity of the iodide of potassium is increased; it is generally unnecessary to carry the dose of mercury to any extent, or to continue its use very long; the treatment is to be completed by the ioduret of potassium. The indurated tubercle is commonly resolved by this treatment, leaving behind it, in the skin, merely a depression of a brown or copper colour, more or less deep.

The mercurial fumigations, alternated with baths, are also exceedingly useful, whilst the tubercles are yet unsoftened, in procuring their resolution; they may be employed with the iodide of potassium and sarsaparilla.

As the syphilitic tubercles are accompanied by a process of inflammation, under the increase of which they soften and ulcerate, a local treatment, whilst they are in a state of induration, is of vast service in assisting the internal treatment in their resolution. For this purpose, cooling lotions may be employed, or fomentations of poppy, or henbane, aqueous solutions of opium, poultices, and leeches applied at a little distance from the base of the tubercle.

When the inflammation is subdued, and the tubercles are indolent, folds of linen soaked in a weak solution of the oxymuriate, or frictions with mercurial honey, or the ointment of the proto-ioduret should be used. They may also be sponged with a lotion composed of the solution of chloride of lime, and afterwards rubbed with an ointment made of calomel and opium. Ricord gives one golden rule here, which, in attempting to resolve the tubercular syphilide, we should bear constantly in mind—that, as long as inflammation exists, a local antiphlogistic treatment should be pursued, whatever, according to the constitution of the patient, the internal treatment may be. The local applications above indicated are only to be employed in a perfectly indolent condition of the disease.

In the ulcerated forms of tubercles, all that has been said on the treatment of primary venereal sores may be referred to with advantage, since these secondary ulcerations require nearly the same local treatment,—the use of the nitrate of silver, the aromatic wine, with astringents, sedatives, narcotics, or digestive ointments, or a local antiphlogistic treatment, according to the aspect of the sore. When caustics are indicated, the surface of the ulcers may be touched with a solution of the deuto-nitrate of mercury in nitric acid; this is the favourite remedy at St. Louis, and the ulcers cicatrise rapidly under its application; the separation of the crusts or eschars may be facilitated by the warm or vapour bath.

The iodide of potassium is the favourite remedy with M. Ricord during the ulcerating stages of tubercle; mercurials also may be

* *Proto-ioduret of mercury*, 1 gr.; *Extract of conium*, 5 grs; or, *Opium*, ½ gr. A pill every night.

used, particularly if the primary disease have not been treated by mercury; the proto-ioduret, the cyanuret, or the syrup of Larrey, are the best remedies. The decoctions of Feltz or Zittman, the liquor arsenicalis, or the arseniate of soda, are also remedies which, in particular cases, may be employed with advantage.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, January 28, 1840.

Sir B. C. Brodie, Bart., President.

CASE OF DISEASE OF THE POSTERIOR COLUMNS OF THE SPINAL CORD.

By Edward Stanley, F.R.S., *Surgeon to St. Bartholomew's Hospital.*

The author considers the case here related as worthy of being recorded, as a well-marked example of disease strictly limited to the posterior columns of the cord, yet producing phenomena at variance with the doctrine of the distinct influences of the anterior and posterior columns of the cord on the faculties of motion and sensation.

The disease, which was not the result of any injury, commenced about three years before the patient's admission into St. Bartholomew's Hospital, with impaired motion of the lower extremities, at first slight, but progressively increasing, so that at the time of his admission, he could only succeed, by a great effort, in raising his legs from the ground while sitting in a chair. Before the patient's death the inability of motion became complete in each lower limb, in its whole extent. In no part, however, was there any defect of sensation confessed by the patient, whether the skin was scratched, pricked, or pinched. On dissection after death, no signs of disease presented themselves, except in the spinal cord. Here, contrary to the anticipations of the many persons who saw the case (and much interest was excited with reference to it) no disease whatever was found in the anterior columns of the cord. An extensive change of structure and colour was, on the contrary, manifest in the posterior columns, from the pons to the lower end of the cord. "The value of the case," says the author, "consists in the distinctness of its phenomena being acknowledged by many competent observers to have been such as they are here recorded."

Dr. Budd remarked that the case related contained facts which were directly opposed to the generally received opinion, that the sensitive nerves came off from the posterior columns of the spinal marrow, and the motion from the anterior columns. He had a case under his care which bore upon this point. A man was admitted into the *Dreadnought* with posterior curvature. The dorsal vertebræ, from the fifth to the ninth, were carious. There was complete loss of power in the lower extremities, while sensation was unimpaired. He continued in this state until his death, when it was discovered that the posterior columns of the spinal marrow were nearly diffluent from disorganization, while the anterior columns were scarcely altered in structure.

Mr. Solly observed, that it was necessary, in examinations of the spinal cord, to recollect the rapidity with which changes in its structure were effected after death.

Sir B. C. Brodie said, that where one part of the spinal column was so much more altered in structure than another, there must have been a corresponding alteration before death.

Mr. Cæsar Hawkins inquired of Mr. Stanley whether, in the case related, there was any deficiency of nutrition in the lower extremities, and whether their temperature was altered.

Mr. Stanley replied, that there was no difference either in the temperature or the nutrition of the lower and upper parts of the body in the case he had detailed.

Mr. Cæsar Hawkins observed, that sloughing was an evidence of the want of nutrition, and was often the result of injury inflicted upon the nerves in their course, or at their origin.

Mr. Shaw said, in reference to the observation of the last speaker, that Magendie and others inferred, from their experiments on animals, that when the ophthalmic branch of the fifth pair of nerves was divided, the eye was destroyed by inflammation and sloughing, consequent upon the loss of the influence which, they supposed, this nerve exercised over nutrition. He (Mr. Shaw) had seen several cases in which this nerve was obliterated by disease, and there was no inflammation or other injury of the eye. He believed that when inflammation did arise, after division of the nerve, it resulted merely from the loss of that sensibility by which foreign bodies were prevented from lodging on the conjunctiva, and in cases where the portio dura was injured, the eye would become inflamed from exposure, although the function of the fifth nerve was unimpaired.

Mr. Stanley referred to a case he had published in one of the early volumes of the Society's "Transactions," in which the trunk of the fifth pair was injured near its origin at the pons varolii. In that case inflammation and sloughing took place, and the humours escaped. He had repeated the experiments of Magendie, in reference to this subject, and with the same results.

Mr. Cæsar Hawkins remarked, that injury to nerves would be followed by a loss of nutrition in those parts which they sup-

plied. He had seen a case, in which the median and ulnar nerves were divided; sloughing of the extremity followed.

Sir B. C. BRODIE had seen two cases, in which the ulnar nerve was divided near the elbow joint. In one case the patient became affected with vesications on the inside of the hand; those vesications assumed a dark purple colour, and threatened sloughing. The patient was liable to these attacks for a long period after the accident. Some years since he (Sir Benjamin) had performed some experiments on rabbits, by passing a small silk thread through the eighth pair of nerves, the animals died in a few days with excessive inflammation of the lungs and pleura.

Mr. MAYO said that Mr. Stanley's case was interesting, chiefly from the attention which it drew to the necessity for inquiring into the uses of the white part of the spinal marrow. The nerves had their origin in the grey structure, and the white portion might be injured without the roots of the nerves, arising in the neighbourhood, suffering. It was generally thought that the white matter partook of the functions of the nerves arising near it. It was interesting to examine into that point. With reference to the influence of the fifth pair on the nutrition of the eye, one point seemed to have escaped the notice of the speakers, and that was the observation of Magendie, that destruction of the eye followed only in those cases in which the nerve was divided on the anterior side of the Casserian ganglion.

Dr. BURNE remarked, that in cases where the portio dura was paralysed, it was not unusual for the eye to become inflamed, from the influence of the atmosphere, and the collection of particles of dust upon the conjunctiva. He had prevented these ill effects by instructing the patient to move his eyelid over the eye frequently during the day, and to hold the eyelid down at night by means of a bandage.

Case of Extraordinary Dilatation of the Kidneys, Ureters, and Bladder, in consequence of a Membranous Fold in the Urethra, which acted as a Valve, and prevented the Free Escape of the Urine from the Bladder. By Dr. GEORGE BUDD, *Physician to the Seamen's Hospital, Dreadnought.*

The subject of this case, a sailor, aged 16, was brought into the *Dreadnought* in a state of insensibility, and died there a few days after his admission. On examination, after death, the kidneys were found dilated into large, saccular, lobulated, and almost membranous pouches, each capable of holding a quart. The ureters were dilated to the size of a man's thumb. The dilatation ceased just as they entered the bladder, and the valvular arrangement at those points was so far perfect, that no urine could be forced from the bladder into the ureters, by pressure made on the former. The bladder was very large, and distended with urine; its muscular fibres extraordinarily developed, forming a thickness of muscular substance equal to that of the left ventricle of the heart in the same subject.

The cause of these changes was a membranous fold or valve, like the valve of a vein, or one of the semi-lunar valves of the heart, which was attached to the upper surface of the urethra immediately behind its bulb. The action of this valve was to prevent the escape of urine from the bladder; but no difficulty was experienced, either during life or after death, in introducing a No. 10 catheter. The urethra anterior to the valve was perfectly natural.

The case is singular from the great degree of dilatation, which was evidently owing to the circumstance that the obstacle, by which it was occasioned, was congenital. It shows that the solid form in which we usually find the kidney, though more convenient, from its occupying less space, is not essential to the performance of its functions. The weight of one of the kidneys was six and a half ounces, which is not much greater than the average weight of a kidney of a person of the age of this patient. The absence of hypertrophy of the substance of the kidney offers a striking contrast with the great hypertrophy of the muscular fibres of the bladder, produced by the same cause, and attended with a like dilatation. In the latter case the hypertrophy resulted from the increase of vascular action, which was rendered necessary by the dilatation, and by the obstacle that produced it.

Dr. BURNE had made many observations in reference to the origin of those serous cysts, which were not unfrequently found on the surface of the kidneys. He had generally found them to arise from some obstruction in the tubuli-uriniferi of the affected part.

Sir B. C. BRODIE had observed the cysts in question in cases where there was no kind of obstruction to the flow of the urine. They contained serum, and not urine, and existed in some cases independently of any kind of disease.

Dr. CLENDINNING had examined many kidneys, with the view of determining the origin of the serous cysts in question. Those cysts contained serum, and existed where there was no obstruction to the passage of the urine. He had come to the conclusion that they were connected with an atonic state of the kidney. They were frequent in old age, while they were very rare indeed in young subjects. They were not confined to the kidneys, but existed in the ovaries, and other bodies.

On the Arrangement of the Intermediate Vessels on Surfaces secreting Pus, with a Note regarding the Vascularity of Articular Cartilages. By ROBERT LISTON, *Esq.*

The author proposes very shortly to describe the arrangement of the intermediate vessels in granulations, as they appear in the cysts of abscesses and open sores. "It will appear," he observes, "on careful examination, that the abscess is coated on the anterior and free surface by a layer of lymph of greater or less thickness, generally about one-tenth of an inch. This layer is, first of all, deposited in a fluid state . . . It is exuded in the form of minute transparent drops, which, being spontaneously coagulable, gradually become milky and consistent. The granules appear to become first coagulated on the surface, and the interior of the drop remains for a while fluid and transparent." The author goes on to say that the layer so formed gradually becomes more consistent, and of a yellow colour; that it lies upon a highly vascular membrane, to which it adheres more or less intimately, and that the vessels in that tissue are curiously interlaced, anastamosing freely with each other, so as to form a delicate network. "There seems to be in the lymph," says the author, "an impulse, as it were, towards organisation, and after a very short time it becomes permeated by minute blood-vessels, which admit our] fine injections . . . . The arrangement of these capillaries, in the granules on the free surface, is distinctly looped and tortuous." The latter fact was illustrated by drawings and diagrams made by Mr. Dalrymple, by the aid of the microscope. The only difference between the capillaries, as above described, in the cysts of abscesses, and those on the surface of open sores, results from their being unsupported in the latter, by reason of which they become dilated and varicose, giving rise to the dark colour often seen in sores, and sometimes even endangering rupture of their coats. The author proceeds to offer some practical deductions of high interest from the foregoing observations, chiefly with reference to the importance of position in the treatment of ulcers. A short note is appended to the paper on the question of the vascularity of articular cartilages, in which the author affirms the proposition, stating that "he has been enabled to demonstrate the existence of vessels most undeniably in the articular cartilage of several diseased joints." Sketches were shown of these appearances.

Mr. MAYO showed a preparation in spirit, which he believed displayed the vascularity of cartilage.

Mr. LISTON need scarcely remind Mr. Mayo, that the vessels to which he (Mr. Liston) referred in his paper could not be seen without the aid of a good microscope. He could find none in those preparations which he had examined at King's College and which had been presented by Mr. M.

Sir B. C. BRODIE had been able, he thought, to detect vessels in articular cartilage, filled with blood, by the naked eye. Another proof of the vascularity of articular cartilage was the fact of disease commencing in that structure, which became absorbed, while the surrounding structures were perfectly healthy. There was a preparation in St. George's Hospital which demonstrated that absorption of the cartilage had taken place through the agency of its own vessels. That preparation had been taken from a boy who was admitted into the hospital with compound fracture of the femur. A large abscess formed in the neighbourhood, and the boy died. After death no pus was found in the joint; the synovial membrane was free from disease. A great portion of the cartilage on the surface towards the joint, was absorbed, while that nearer the bone was perfectly healthy. The absorbed portions seemed as though they had been cut out with a hollow chisel. In another case he had found the cartilage of the ankle-joint absorbed, the bone and synovial membrane being healthy. He had noticed where large abscesses followed fractures, in cases where there was no symptom of disease of the joint, that the cartilage was often so diseased.

Dr. WILLIS had dissected a case at La Pitie, in which there was absorption of the centres of all the articular cartilages in the body, accompanied by a deposit of matter resembling porcelain.

UNIVERSITY COLLEGE HOSPITAL.

NECROSIS OF THE LOWER JAW.

A. C., aged 22, was admitted, January 8, under the care of Mr. Liston. He is an artillery-man; had been serving a year in the artillery when he went to Newfoundland, and in going there caught cold on ship-board. He had, at first, toothach, and had a decayed tooth on the left side of the lower jaw. "From the pain of the tooth" his jaw began to swell, and was very painful; he had pain in the ear and temples, and hard lumps began to be perceptible in the mouth. It was extremely painful in about a fortnight after this attack, and an abscess formed and burst at the side of the neck, below the parotid gland; the pain was much relieved when the pus came away, which was extremely offensive; this abscess continued to discharge; the swelling went down after the abscess burst; two of his teeth came out. He caught a second cold a few days after the abscess burst, and the jaw began to swell, and several parts of the bone came away from time to time; he has had a discharge from the wound up to the present time.

On admission, he had two fistulous openings at the angle of the left lower jaw; there was a great deal of thickening of the jaw on this side, with a paralysis of the lower part of the lower lip on the left side; the probe grated on some exposed bone. Mr. Liston made an incision, and, with a pair of sequestrum-forceps, removed a portion of the necrosed bone, about the size of the end of the thumb. The wound was dressed with water-dressing, and from this time continued to heal up to the 29th of January, when he was discharged cured.

FRACTURE OF THE ORBITAR PLATE OF THE FRONTAL BONE.

E. J., aged 40, was admitted January 12, under the care of Mr. Liston; he is a horse-keeper, and when standing behind a horse received a kick on the inner angle of the left eye and side of the nose; a wound was inflicted; he was knocked down, but was not insensible. The accident happened at nine, A.M.; he has not been insensible to the present time; he has vomited; he felt very sick when knocked down, and has remained faint ever since; he has lost some blood from the wound.

On admission, four hours after the accident, a lacerated wound was found at the inner angle of the left eye, extending an inch along and under the eye-brow. There was also a lacerated wound of the left side of the nose, the bones of which were broken; the orbitar plate of the frontal bone was fractured and elevated, and at one point there was a foramen through which a probe passed, apparently, into the cranium. He is in a state of collapse, cold, exsanguineous; not insensible; answers questions readily. Pulse 44, labouring; feels great pain of the head, particularly round the situation of the wound. He does not complain of any heaviness or dulness of the head; right pupil not contracted or dilated; left pupil cannot be seen; feels faint.

He continued in much the same state until 9 o'clock in the evening, when he became warm, his pulse 60, but labouring, full, and intermittent every ten or twelve beats; his head was hot, and a little painful over the situation of the injury.

Jan. 13. Has slept a little during the night; has not been insensible since the injury; his general surface is now pretty warm; his head rather hot and painful across the forehead and left side of the head; pulse 60, full, incompressible, labouring, intermitting every ten or twelve beats; dull pain in the head; to be bled to thirty ounces. His pulse became quicker, softer, and more regular after the bleeding. A purgative was administered. In the evening his pulse was much the same, full, 60; he still complains of pain in the head, but not so great as before the bleeding; pupils of both eyes act on the application of light, but the right pupil is somewhat contracted; the iris irregular, and there is the appearance as of effused lymph behind it; thirty leeches to the head.

14. Pulse 60, still intermittent, full, but compressible; has slept a little in the night, but awoke often; his head is still a little painful on the left side; it does not feel heavy, and he can easily raise it from the pillow; general surface not very hot; saline mixture with antimony every three hours.

15. Has slept tranquilly during the night, but awoke often; pain in the head less, though he still feels a little pain on the left side; pulse 60, and intermitting, but not so much as it was, compressible, though somewhat labouring; bowels have been freely opened; tongue white and coated; head not heavy. The wound has been dressed with water-dressing, and no attempt made to bring it together; the saline mixture to be continued, and twenty leeches to be applied to the head.

20. Since the last report he has continued to improve very much; a ligature, which was applied to a small vessel, has come away; he has had no pain in the head lately; his bowels have been freely opened; he has continued the saline mixture with calomel; there have been no symptoms to combat; his pulse still continues 60, slow, and occasionally intermitting; he lies very quietly in bed, and sleeps well at night; the wounds are suppurating freely, and beginning to heal under the use of water-dressing; there is a good deal of chemosis about the left eye, but he has complete sight in the right eye.

23. Wound beneath the eye is quite healed; his general health is good, and he feels no pain in the head.

27. He has been sitting up for the last week, and feels much better; he has had no unusual sensations about the head, and no pain; the sight of the eye is not much diminished; the chemosis has disappeared.

29. During his recovery he has had diplopia, which diminished gradually, and he now sees pretty well; there is some flatness of the external angle of the left frontal bone, and he suffers occasionally from pain in the head, but his general health is good, and his wound quite healed.

Discharged well.

ST. THOMAS'S HOSPITAL.

CONCUSSION OF THE BRAIN.

Joseph Barwick, a horse dealer, aged 29, was admitted into George's ward, under the care of Mr. Green, Feb. 4, 1840. A short time before admission he was driving a machine in which horses are broken in for harness, when, owing to the restiveness of one of the horses, an accident occurred, and

he was thrown from the elevated seat with considerable force, falling on his head. He was at the time in a state of intoxication.

On being brought into the hospital, about half-past four in the afternoon, there was a total absence of consciousness, sensation, and voluntary motion; his extremities were cold; pupils contracted; pulse feeble; and breathing stertorous. His head was shaved, and, on examination, both face and head were found to be cut, and an appearance, singularly resembling that produced by the depression of a portion of the cranium, was observed above the left eye, towards the outer canthus. The pupils soon lost their contracted state, and became dilated, and when Mr. South saw the patient, about seven in the evening, he evinced some slight signs of sensibility, by moving his head and arms, but could not speak. His breathing was still stertorous; pupils fully dilated, but contracted on the stimulus of a strong light; pulse 86, very feeble; surface of body cold. He was ordered five grains of calomel and an ounce of brandy directly.

Half-past eight. Has vomited some food once; wounds on the head bled freely; the right pupil dilated, but contractile; left pupil contracted; pulse still 86, but much stronger; breathing much more natural.

Half-past eleven. Became so very restless that he was obliged to be strapped down to the bed. He was, by this time, sufficiently conscious to complain of the restraint, and vomited again; pulse still 86. On being asked if he felt pain, complained of his bowels.

5th. Is quite rational. Complains of pain over the left eye, in the situation of the depressed appearance before noted. Has vomited again in the night; breathing natural; tongue white; pulse 72, soft and full; pupils in the healthy state.

6th. Much better, but complains of pain across the forehead, and in the loins; pulse 76; bowels not open; and tongue white. He was, therefore, ordered a scruple of the hospital pulvis rhei cum hydrargyro, directly.

7th. Bowels opened; in every respect better.

8th. Improving rapidly; pain in head and loins entirely gone; bowels open; appetite good.

This case is interesting, as it shows the many difficulties met with in forming an accurate diagnosis in actual practice, and offers an exception, probably not an uncommon one, to the general rules laid down in different works on injuries of the head. It was at first the impression, from the state of the pupils and the stertorous breathing, that the case was decidedly one of compression, and this was not thoroughly disproved by the speedy amelioration in the symptoms; because compression might exist, and its symptoms be aggravated by the state of intoxication, or the concussion of the brain; these latter effects might go off, and the patient, though apparently better, be still suffering from the effects of compression, whether from depressed bone or extravasation of blood. The case proves, then, that simple concussion of the brain is sufficient to cause dilatation of the pupils, and afterwards their irregular contraction and stertorous breathing; also, that intoxication may complicate or simulate these cases, and produce no symptom, as tainting of the breath, to lead a person, ignorant of the history of the case, to infer that any such state existed.

FRACTURE OF LEFT PATELLA FROM MUSCULAR ACTION.

Thomas Horby, a cooper, admitted under the care of Mr. Green, January 27, 1840. Whilst walking down the steps of the hospital-brewhouse, he slipped off the last step, and fell on his breech. He did not strike the patella in any way, but on attempting to rise he found he could not stand. On examination, a transverse fracture of the left patella was found, and the leg accordingly was laid on a back-splint, the foot was raised, and a tepid spirit-wash constantly applied.

Feb. 1. There being no swelling, the leg was rolled, and placed on a long horizontal back-splint, with a vertical foot-piece. The foot was raised, and the portions of patella kept as nearly as possible in juxta-position by strips of soap plaster. He is going on very well.

FRACTURE OF RIGHT CLAVICLE.

Mary Clement, age 13, admitted into Elizabeth's ward on the 11th of January, under the care of Mr. Tyrrell. About an hour before admission she was knocked down by a butcher's cart, the wheel of which passed over the right shoulder and upper part of the chest, producing a simple transverse fracture of the clavicle, towards its inner third. As there was no swelling, after adaptation of the broken ends of the bone had been effected, by drawing the shoulder backwards, a figure of 8 flannel roller was applied; also a pad in the axilla, to act as a fulcrum for the humerus, the lower extremity of which was confined to the side by a bandage. The shoulder was thus thrown outwards, and overlapping prevented. The fore-arm was supported in a sling.

14th. Fractured portions in good position.

Feb. 3rd. Discharged well.

CURE OF STRABISMUS.—M. Dieffenbach has recently cured three persons affected with strabismus, by dividing some of the muscles of the orbit.

CHELTENHAM GENERAL HOSPITAL.

Medical Reports, with Cases and Clinical Observations. By JAMES M'CABE, *M.D., Physician to the Hospital.*

HÆMATEMESIS.

Jan. 27th.—In former reports I mentioned the case of Hugh Reilly as being one of professional interest. He was discharged today under the designation of "cured." I hope it may be so. To derive instruction from cases, recapitulation is sometimes necessary.

Reilly had been employed as a labourer on the railway, near Cheltenham; he was attacked with vomiting of blood, and became a patient of the dispensary. The accommodation which a dispensary affords is not suitable to such cases, for the most judicious treatment will be of no avail, unless diet, temperature, and other circumstances, are also suitable. After six or seven weeks of treatment under one of the dispensary physicians, without any benefit being produced, he became an hospital patient. The symptoms, on admission, were given in a former report. They were, generally, besides hæmatemesis, cachexia, emaciation, pain in the præcordial region. In fact, the case very much resembled in its external characters what I had seen in an early part of my professional life in the Island of Trinidad, and to which Dr. Fergusson, then Inspector-General of Hospitals in the West Indies, and now practising at Windsor, has since frequently alluded in his writings, under the designation of "mal d'estomac."

In the treatment of this case aperient medicines were frequently given, in order to prevent the accumulation in the bowels of any exudation of blood from the mucous membrane, or of any effusion which might take place from a rupture of any of the vessels connected with the spleen, or liver, or any other of the abdominal viscera. In the treatment of hæmatemesis, the great object is to prevent sickness, as the contractions of the abdominal muscles, in the act of vomiting, may either cause a rupture of blood-vessels, or occasion a forcible expulsion of blood from vessels already ruptured; with this view saline effervescing draughts were frequently given, and infusion of the rose with Epsom salts, and tincture of jalap, was the form of aperient generally preferred. Lettuce, hop, and hyoscyamus were given at night, and opiate plasters applied, from time to time, to the epigastric region. Chalybeates and quinine were given after the hæmatemesis had for some time ceased, with the view of bringing the circulation into the extreme vessels, and tinging with coloured blood the colourless vessels of the surface. A diet sufficiently nutritious was directed. Under this system of treatment he gradually improved; his appetite became good; the white and pasty skin acquired something of the tinge of blood, even in the short period that he was in hospital, and he acquired some muscular development; and although there still remained some uncomfortable feelings about the region of the epigastrium, which induce me to fear that the disease may return when he resumes his usual habits and necessary employments, yet he left the hospital apparently cured.

CASES OF CYSTICERCUS FINNUS OF THE BRAIN.

BY M. NIVET.

THE following cases are worthy of notice, both on account of the rareness of the affection, and the accuracy with which the characters of the entozoa are described by M. Nivet:—

CASE I.

F. Joret, 43 years of age, was admitted into the Hospital Beaujon on the 18th of September, 1835. He had been much subject to lead colic, but his present disease dates only from nine days back. It commenced with acute pains in the limbs, followed by loss of appetite, and some colic. On admission into hospital the face was pale; the sensibility and muscular power diminished; the speech slow, but answers correctly given; abdomen painful and retracted; vertigo; weakness; pulse 72.

19. Delirium during the night; dizziness and singing in the ears; articulation slow and difficult; no stool. Cupping-glasses were applied behind the ears, and some valerian given.

20. Increased delirium; pulse frequent; constipation. He was bled to 16 ounces. The glasses were again applied, and he took viij grains of calomel.

21. Some delirium; skin moist; pulse 101; pupils natural; sensibility intact, but the power of moving the arm diminished. Blisters to the thighs; a seton to the neck; cold lotions to the head.

22. Delirium; loss of sensibility; stertorous breathing; filiform pulse; death.

Post-mortem Appearances.

Serous infiltration of the pia mater. On separating the membranes four small cysts were discovered in the anfractuosities; the nervous tissue surrounding them was not altered. On the convex surface of the hemispheres there were also several small cysts similar to those of the membranes. The rest of the brain and spinal-marrow was quite healthy.

Case II.

—— Hardy, 56 years of age, was admitted into hospital on the 15th November, 1835, in a state of delirium. The patient had been much given to drink, and was subject to occasional attacks of epilepsy for several years.

15. Agitation, with delirium; pulse frequent and strong; phlegmonous erysipelas of the left lower extremity, in which sensibility is almost completely lost.

He was bled to 16 ounces.

16. The limb was freely scarified, and a quantity of serum with some blood liberated; delirium; pulse irregular, 128; tongue dry; an eschar is forming on the left thigh.

Twenty leeches were applied behind the ears.

17. The delirium persists; the eschar is extending rapidly; pulse frequent.

Bark was now ordered, but the patient sank during the day.

Post-mortem Appearances.

Cerebral veins much congested; eight hydatids are found in the membranes and grey substance of the hemispheres. Several similar cysts were discovered in the iliac, psoas, and abdominal muscles.

The following are the characters presented by the cysts which were found in the preceding cases:—

1. The hydatid was enveloped in a fibro-cellular cyst, which was sometimes transparent, sometimes opaque and non-adherent to the hydatid.

2. The latter was transparent, and tore easily. At one part of its surface was a dark point, indicating where the cysticercus issues from the caudal sac. The sac itself was transparent, and varied in size from that of a pea to a nut. On opening the cysticercus it was seen inclosed in its proper membrane, and adhering to the sac by its tail. The body of the parasite is fusiform, and marked with transverse striæ. The head terminates in four suckers, and a central eminence or tube; the entire length of the entozoon is four to six lines.—*Archives de Med.*, Dec. 1839.

On the Prevention of Tubercles.

In a letter addressed to the Royal Academy of Medicine, M. Coster announces that, from certain experiments which he has made, he hopes to prove,

1. That it is possible, even in the face of predisposing causes, to prevent the development of the tubercular diathesis.

2. That even where the formation of tubercles has commenced, their progress may, in a great number of cases, be arrested.

The following are a few of the experiments upon which M. Coster has built up his hopes:—

Two years ago he placed a number of dogs, rabbits, &c., in the circumstances most favourable to the development of the scrofulous diathesis. Thus, many of the unfortunate animals were shut up in dungeons, without light, incapable of moving, and exposed to a moist cold by means of wet sponges which were hung up in the cages. Some of the animals placed in these conditions, were fed on their ordinary diet; others were fed with *ferruginous* bread, containing ½ oz. of carbonate of iron to the pound. All the former became ill, the greater part tuberculous, but not one of those fed on the bread containing iron presented a trace of tubercles.—*Bull. de l'Acad.* Jan. 31, 1840.

New Method of Fumigating.

M. De Clerq has proposed a new method of practising medicinal fumigations, which is very extravagantly praised in a Belgian journal. This method consists in first washing the parts to be fumigated with a solution of nitrate of silver (10 grs. to the oz.), and then fumigating. The medicines which M. De Clerq most commonly employs for the fumigation of old ulcers, &c., are, one part of cinnabar, two of balsam of Tolu, and two of aloes. By degrees, as the fumigations are repeated, the parts become covered with a coating which resembles a metallic plate, which has the effect of protecting them from the action of the air, in addition to its intrinsic powers.—*Gaz. Med. de Paris*, No. 5, 1840.

Utility of Frogs to Science.

M. Dumeril lately read a curious paper before the Academy of Sciences, for the purpose of showing how much the progress of physiology was indebted to the study of frogs. M Dumeril shows, amongst other things, that the discovery of the blood-globules, commonly attributed to Leuwenoeck and Malpighi, really belonged to Swammerdam, and that the first experiments on muscular irritability were made in 1678, by the same physiologist.—*Ibid. l. c.*

Tasteless Form of Ipecacuan.—When it is desirable to administer ipecacuan to refractory children, or to persons to whom the ipecac. wine is particularly odious, as is often the case, the following form will be found to answer:—

Bruised root of ipecac., ℥ss;
Boiling water, enough to make 1½;
Lemon syrup, ℥ss. A twelfth part every third hour.—*Dr. Osborne. Dub. Jour.*

SIR ANTHONY CARLISLE AND HIS FRIENDS.

Mr. C. H. Rogers Harrison, of Southampton-street, Fitzroy-square, has addressed to us a very long letter (occupying 14 sides of foolscap paper), in defence of Sir Anthony Carlisle's position as surgeon at the Westminster Hospital; but it is impossible for us to find room for his communication, consistently with our duty in selecting matter to occupy the pages of The Lancet. As, however, we shall extract from his letter such allegations and declarations of facts as fairly demand a place in our columns on account of their relation to the statements that we have recently published respecting the unfitness of Sir Anthony to retain the post that he fills, the objects of Mr. Harrison will be legitimately fulfilled.

Mr. Harrison writes as a governor of the hospital who is vexed at the "discredit" which The Lancet has thrown "on the vigi-"lance of governors of hospitals in general, "and of the Westminster in particular."

He considers that the discussion at the hospital is part of a "system of annoyance "which ever attends the interference of "non-professional men with those acting in "the profession." He is firmly convinced, that the "reports" of the two cases in The Lancet, at page 624, are "grossly exaggerated," "untrue," "fabulous," "unsupported," "false in position," and "disproved by creditable witnesses;" and he considers that Sir A. Carlisle has been assailed "most unjustly, and without provocation," at the same time that he does us the credit to believe, that we "would not for one "moment disseminate *untruths* to the de-"traction of *any* professional man's charac-"ter," although The Lancet has "never been over-courteous" to Sir Anthony.

How is it, he asks, that the cases of Mayo and James have, in particular, "cre-"ated such an unprecedented noise in the "hospital?" Because they were shown in The Lancet to a lay governor, who, being "fired with virtuous indignation at the allu-"sion made to the vigilance of the gover-"nors, instantly unfurled the sails of his "active mind, and stood out to sea, deter-"mined to investigate the much abused "province of surgery." A Board-meeting was called, at which Mr. Archer read the letter that he had sent to The Lancet, "contradicting *seriatim* the misrepresenta-tions;" after which Mr. Archer, on being cross-examined, "as many an able man be-"fore him has done, lost his self-pos-"session," when, consequently, "the evi-"dence that day did not produce such an "impression upon unwilling ears as it might "otherwise have done."

Mr. Harrison insinuates that the conversation in which Mr. Archer told Mr. Cheere "about strapping the wound," in the case of Mayo, was not "purely accidental;" but he gives no fact to support this view, and, with reference to Mr. Archer's remark at the Board-meeting, that his statement on that occasion to Mr. Cheere was *confidential*, Mr. Harrison asks, "Was it fair, to say "the least of it, that a privileged commu-"nication should hereafter be made use of "against the party implicated?"

Respecting Mr. Dasent's "testimony, in "confirmation of Mr. Hale Thomson's as-"sertions," Mr. Harrison "*believes* that "since that time Mr. D. has admitted that "he might have been mistaken in the cases, "there having been another man in the hos-"pital, with a somewhat similar accident, "some time previous to the man Mayo." Mr. Harrison considers, however, that Mr. Dasent's original statement was "conscientiously" made.

Mr. Harrison pronounces the record of the "*opinion*" of the majority of the Committee of January 21st, on the minutes of the Board, as having been unprecedentedly "monstrous," and he therefore approves of the expunging of the "opinion" from the book by "same rev. gentleman who had "sanctioned the insertion as chairman on "the 21st."

Mr. Harrison then proceeds to the business of the 31st of January, when the Board-room was crowded by "as goodly an array "of trustees of the hospital as ever sat "within its walls before." And the following is Mr. Harrison's description of what Mr. Anthony White called, and Mr. Harrison now re-christens, the "maniacal" demonstration of the candidates for the diploma of the College, in favour of the Examiner, Sir Anthony Carlisle. This is the demonstration for which Mr. Thomas William Walsh apologised, under the circumstances related in the letter of Mr. Walsh, described at page 774 of this week's Lancet.

Mr. Harrison adds that the assaulted governor "most courteously disdained all "knowledge of any motive the pupils "could have had for such a demonstration, "and handsomely expressed his disapproba-"tion of their immediate dismissal."

The Board, he says, then proceeded to business, and Mr. Archer, on *this* occasion, "with but little hesitation," gave replies on a cross-examination, the result of which, *says Mr. Harrison*, "was to negative *every* statement relative to the two cases."

Mr. Harrison says, that a "Mr. Bird, a "dresser of the hospital, who had the care "of the two men" was next submitted to examination, "and if his clear and straight-"forward answers did not sufficiently show "the *falsity of the entire reports*,* then Mr.

* This falls under the category of "going the whole hog." Mr. Bird (or Mr. Harrison for him) proves a little too much, as Mr. Archer *confessed* a little too much.

"HALE THOMSON was *not* puzzled for a "question," &c. (?) This Mr. BIRD, it seems, plumply and unblushingly denied, or, to use Mr. HARRISON'S account, could not by any governor, be "induced to acknowledge," the feebleness of Sir ANTHONY'S hand in operating on JOHN JAMES, but asserted "rather the contrary!" Such a witness as Mr. BIRD deserves the diploma, and Sir ANTHONY will be a most ungrateful man if it is not at once presented to every such friend on stepping into the examination-room of the College. Mr. BIRD may one day be practising surgery with his evidence on the 31st inst. for the chief guarantee of his fitness to possess a surgical diploma. Thus, under a system of *hospital* examiners and *private* examinations, arise the penalties which the public are liable to pay in the hours of helpless sickness and disability.

On the 4th of Feb. the inquiry was, by adjournment (the last discussion having lasted five hours), renewed, when, Mr. HARRISON says, "an ample apology" (an ample apology Mr. WALSH!) "was made by the "riotous pupils of Tuesday, and received." A Mr. LANE, a pupil of the hospital, then "attended to substantiate all that had been "verified by the two former witnesses" in favour of Sir ANTHONY; and "the nurses of the two *patients themselves*," and even "more evidence," besides, Mr. HARRISON alleges, could have been adduced "in support of "the contradiction, had it been considered "*necessary*."

Yet, "notwithstanding all this mass of "*evidence*, the verdict," says our correspondent, "was virtually, ultimately *given against that evidence*," a result which elicits his surprise,

"That such things be, and overcome us like a special cloud, &c."

We cannot repeat the motion and amendment that were made. Our correspondent will find them already published in the last LANCET. By the amendment that was *carried*, courteously requesting the retirement of Sir ANTHONY, the public will be sure to abide, as an indication of the actual character of "the mass of evidence" adduced on the occasion. We said that Sir ANTHONY CARLISLE was no longer fit to perform the duties of surgeon in a public hospital. We did so on behalf of the WILLIAM MAYOS, the JOHN JAMESES, and the other poor patients of the institution; and the Board of Governors of the hospital, after a protracted and anxious inquiry,—during which some of the friends of the Surgeon and College Examiner got up a maniacal demonstration of physical force, in order to terrify the governors against an expression of the truth,—the Board of Governors, at one of the fullest meetings ever held in the hospital, as Mr. HARRISON expresses it, "virtually and ultimately confirmed our allegations." The friends of mismanagement and misrule, of incompetency and disqualification, of private unworthy interests as opposed to the public good, may deplore and lament this result; the LYNNS and the BROOKESES may commend yellers, groaners, and molesters, and patronise riotous acts on behalf of imbecility and bungling ignorance, but they cannot rail the final resolution of the Governors from off the Minutes of the Board,—that resolution amounting to what the Reverend Mr. SHEPHERD (according to our correspondent) called a recommendation to Sir ANTHONY "to go about his "business, as the hospital did not want him "any longer." It is impossible to avoid admiring the logic of Mr. SHEPHERD in the following extract from Mr. HARRISON'S report of his speech:—"As to the trembling "hand of Sir ANTHONY, he (Mr. S.) begged "to say, that he was nearly as old, and that "*his* (Mr. S.'s) hand, perhaps, was not like "what it was 40 years since; yet he should "be sorry for any one to tell him that he "should never mount a *pulpit* again to "*preach!*"

Our correspondent's criticisms and witticisms on the style of Mr. BICKNELL, Mr. WOOD, and the Rev. Mr. BENTALL, we can find no space to abstract; nor Mr. AYSTON'S summing up, in reply, excepting to record that Mr. AYSTON (plainly a "whole hog" friend) did, according to our correspondent, "clearly and demonstratively show that "*every single paragraph* of the statement in "THE LANCET was utterly devoid of truth "and unjust;" that Sir ANTHONY "per-"formed the amputation in two and a half "minutes, as well as any man could have "done it," and that the result of the operation was "perfectly successful."

We must simply reaffirm the justice of statements and opinions, published in this Journal, which the vote of the Board declared to have been impeached without success, and worthy of adoption in the present arrangements of the Westminster Hospital.

SIR A. CARLISLE'S FRIENDS.

A CORRESPONDENT, under the signature of THOS. WM. WALSH, but who states that his "name at full length" is THOMAS WILLIAM WALSH, has addressed to us a letter respecting what he terms "the mis-statements concerning him in THE LANCET of Feb. 8, in a note published at page 742, signed "A GOVERNOR," containing the name of Mr. JOHN WALSH. Mr. THOS. WM. WALSH says that he, "having received the diploma of the "College of Surgeons last July, cannot be "called a 'know-nothing candidate for that "diploma.'" As one of the young men who was concerned in the recent uproar

at the Westminister Hospital, and which was described by Mr. White as simulating the outcries of manaics rather than of sane persons, Mr. Thos. Wm. Walsh says, that many of the Governors whom the students "*knew* to be unfavourable to the cause of Sir A. Carlisle, entered unmolested," and as regards the Governor who *was* molested, no attempt was, to "his certain knowledge, "made, or even thought *of*, to throw him *over* "*the bannisters.*" Respecting the attendance of the molested Governor at the Board-room to vote for mercy towards the youths, Mr. Thos. Wm. Walsh remarks that the gentleman in question had not been sufficiently long a Governor "to possess a vote." The word *vote*, therefore, in THE LANCET should have been written *plead*. He also considers that the subsequent speech of the Governor did not indicate "leniency" to the molesters. Mr. Thos. Wm. Walsh also favours us with a copy of the "apology, or rather explanation" which he, as one of "the two most active" of the molesters, forwarded to the Board, when the punishment of expulsion was threatened, lest the wrong should be thought to have been too amply amended. In this letter he expresses his "extreme regret" that he should have received a notice signifying the chairman's "condemnation of his conduct;" assures the chairman that "nothing was further from his intention than offering any insult to the Governors," and "acknowledges that it was most indiscreet to demonstrate any public mark of disapprobation within the walls of the hospital." Mr. Thos. Wm. Walsh distinctly denies that any "meeting was held" at which it was agreed to assault one of the Governors; but he does not explain by what other species of preliminary connivance it was arranged to molest one particular Governor, and allow the others to pass "unmolested." On the subject of the police-officer, Mr. Thos. Wm. Walsh mends the statement in the report, by saying that "the fact is that after the "Committee had dissolved, the *assaulted Go*"*vernor*, on appearing outside the hospital, "being greeted with marks of disapproba"tion similar to those which he had previ"ously received, called to a policeman, who "declined interfering in the matter, but "suffered the students *to continue their ex*"*pressions of indignation.*"

After this confession of Mr. WALSH that he was one of the party who so grossly misconducted themselves,—and for an additional confirmation of whose proceedings, as reported in THE LANCET, we may *refer* to the statement of Mr. HARRISON at page 773 of this week's Number, we must beg Mr. WALSH not to put himself to the trouble of any further correspondence on the subject.

MEDICAL REFORM.—SPECIMEN PETITION.

To the Editor of THE LANCET.

SIR:—As on all hands it is admitted, that the time has arrived when Petitions should be poured in from all quarters to Parliament, in favour of Medical Reform, I beg to suggest the following as a specimen of the kind of Petition that would be most useful to the cause, and most satisfactory to the Member who may be requested to present it. It may be as well to state, that thousands of Petitions may be presented to the House of Commons, all expressed in the same words, each drawn out on foolscap paper. I am, Sir, your most obliged,

WM. SIMPSON.

110, Guildford-street, Feb. 6, 1840.

To the Honourable the Commons of the United Kingdom of Great Britain and Ireland, in Parliament assembled;

The Petition of, &c.

HUMBLY SHEWETH, — That your Petitioner* is a legally qualified medical practitioner, residing in

That your Petitioner deplores that many anomalies exist in the medical institutions of the United Kingdom, and daily observes Her Majesty's subjects injured by defects in the present constitution of the licensing bodies, particularly as regards the prevention of ignorant and uneducated persons from practising medicine, surgery, midwifery, and pharmacy:

That it is the opinion of your Petitioner, that A SINGLE REPRESENTATIVE CORPORATION, or FACULTY OF MEDICINE, ought to be established in each capital of England, Scotland, and Ireland, in the controul of which all individuals licensed to practise the various branches of the medical profession should possess equal rights:

Your Petitioner, therefore, entreats your Honourable House to take the subject of medical reform into its earnest consideration, give its assent to a Bill for the consolidation of the Medical Profession into One Faculty of Medicine, having full power to regulate the government of the whole body,

* The form, by altering the numbers and tenses, will suit more than one petitioner.

being enabled to form regulations for the admission of members to practise medicine, confering equal rights and privileges upon all its members, and encouraging the attainment of professional *eminence only through the possession of medical knowledge, and the personal qualities of talent, industry, and perseverance:*

And your Petitioner will ever pray, &c.

ARSENIC IN CHOREA.

Dr. REESE recommends, in the following terms, the employment of arsenic, as a remedy in cases of chorea:—

These results of experience have led me successively to test the comparative merits of various other remedies which have been reported as successful, as the rubigo ferri, cuprum ammoniacum, sulphate and flowers of zinc, oxide of bismuth, camphor, electricity, nitrate of silver, &c., and, after very considerable opportunities, I have learned to rely upon the tonic powers of *arsenic* in preference to any and all other medicines of this class, and have never known it to fail in effecting a radical and permanent cure. I feel great confidence in recommending it to the profession in all those cases in which the tonic plan is decided upon, either with or without preliminary medication. The arseniate of potash, as existing in the formula of Fowler's solution, is the preferable mode of exhibition, and its dose should be graduated according to the ability of the stomach to receive it without nausea. In the most numerous subjects, varying from seven to sixteen years of age, six or eight drops should be given night and morning, gradually increasing its dose and frequency. Adults may take ten drops, increasing to fifteen, and even twenty, three times a day, and in all cases it should be persevered in for a week or more after all the spasmodic symptoms have disappeared. The only unpleasant effects are nausea or vomiting, if the dose be too large, and occasionally a tumefaction of the head and face if too long persisted in. On either of these effects being produced the medicine should be discontinued for a few days, and then resumed in a diminished dose.

With these precautions I have, for a number of years, employed this remedy in over two hundred cases of chorea, without ever having witnessed any of the untoward results upon the constitution, said to follow the exhibition of arsenical preparations. So far from any of the sequelæ occurring which are apprehended by the alarmits, my patients have, under its use, not only recovered from chorea, but many of them seem to have since acquired vigorous constitutions and improved health. I have used it in infancy, in delicate females during pregnancy, and under circumstances supposed to forbid its employment by many, and I have never once seen cause to regret its exhibition.—*New York Quarterly Journ. of Med.* No. 2.

IMPERFECT EXTRACT OF HEMLOCK.

THE uncertainty of the extract of hemlock may be shown by an easy experiment. The conine, which in the process of decomposition is partly resolved into ammonia, is in this preparation always, according to Professor Geiger, more or less deficient, and often entirely absent; and to prove that this decomposition has taken place, it is only necessary to add some water of caustic potash, when the ammonia may be distinguished by the odour, and by holding over it a rod dipped in muriatic acid, whereupon the fumes formed by the muriate of ammonia are rendered visible. This experiment has shown ammonia in every specimen of the extract in which I tried it.—*Dr. Osborne. Dublin Journ.* Jan. 1840.

TO CORRESPONDENTS.

The following communications, amongst others, have reached us:—

R. on Parochial Medical Attendance.

A Physician, (Birmingham), on Vaccination.

The "Fifth Sheet of Additional Testimonials" in favour of Dr. Evory Kennedy.

Observations on "The Present System of Education."

Mr. Torbock's letter on the Speech of Dr. Brown, at Newcastle-on-Tyne.

The 25th and 26th "Reports of the Glasgow Royal Asylum for Lunatics."

A Pupil of St. Thomas's on the Sedative Treatment after the Operation for Hernia.

The letters dated from the library of the London College of Surgeons.

Medicus, on the Grievance of Naval Surgeons.

The letter of *Dr. Healey* on the Ennis Medical Reform Petition.

Nemo.—It is impossible to say what is *likely;* but although the feelings of the Commissioners may be opposed to a liberal arrangement, it is probable that some more reasonable plan will be adopted than is at present in operation, when the matter is rediscussed.

The cases of *Dr. Lanyon* and *Mr. H. Smith*, next week.

We have found even an abstract of the letter of *Sir Charles Scudamore*, forwarded to us last week, on Inhalation in Pulmonary Disease, too long for insertion in the present number of THE LANCET; but room for it may offer in the next.